

Leadership Strategies for Community Risk Reduction

LSCRR-Student Manual

3rd Edition, 1st Printing-October 2015



FEMA

FEMA/USFA/NFA
LSCRR-SM
October 2015
3rd Edition, 1st Printing

***Leadership Strategies for Community
Risk Reduction***



FEMA

Leadership Strategies for Community Risk Reduction

LSCRR-Student Manual

3rd Edition, 1st Printing-October 2015



FEMA

This Student Manual may contain material that is copyright protected. USFA has been granted a license to use that material only for NFA-sponsored course deliveries as part of the course materials, and it shall not be duplicated without consent of the copyright holder. States wishing to use these materials as part of state-sponsorship and/or third parties wishing to use these materials must obtain permission to use the copyright material(s) from the copyright holder prior to teaching the course.

This page intentionally left blank.

TABLE OF CONTENTS

	PAGE
Table of Contents	iii
Acknowledgments	v
Course Rationale	vii
Course Goals	vii
Target Audience	vii
Grading Methodology/Course Evaluation Plan	ix
Evaluation Plan Summary/Student Record Sheet	xi
Grading Rubric: Pre-Course Assignment	xiii
Activity 6.1: Culminating Project Assessment Tool	xv
Individual Culminating Scoring Summary	xix
Schedule	xxi
Firefighter Code of Ethics	xxiii
A Student Guide to End-of-course Evaluations	xxv
 UNIT 1: GETTING READY FOR COMMUNITY RISK REDUCTION	 SM 1-1
Appendix: Merseyside FRS: Innovation to Mainstream	
UNIT 2: ASSESSMENT	SM 2-1
UNIT 3: PLANNING, IMPLEMENTATION AND RESULTS	SM 3-1
Appendix: Evaluation at a Glance	
UNIT 4: LEADING ORGANIZATIONAL AND COMMUNITY CHANGE	SM 4-1
UNIT 5: BUILDING ORGANIZATIONAL AND COMMUNITY EQUITY	SM 5-1
UNIT 6: CULMINATING PROJECT	SM 6-1

Acronyms

This page intentionally left blank.

ACKNOWLEDGMENTS

The development of any National Fire Academy (NFA) course is a complex process aimed at providing students with the best possible learning opportunity we can deliver.

We wish to thank the many students who have taken the course and offered suggestions on how to make it better for students to follow. Their input has been invaluable to the process. A special thanks to the contract instructors who have taught the course and shared their expertise. We want to acknowledge their participation and contributions to this in-house development effort and extend our heartfelt thanks for making this quality product.

The following people participated in the creation of this course:

Mary Marchone
Training Specialist, Fire Prevention Management Curriculum
U.S. Fire Administration, National Fire Academy
Emmitsburg, Maryland

Mike Weller
Contract Instructor
Smithsburg, Maryland

Ed Kensler
Contract Instructor
Luray, Virginia

Michael Chiaramonte
Contract Instructor
Clayton, North Carolina

Michael Wallace
Contract Instructor
Salem, New Hampshire

Linda Kirby
Contract Instructor
Tempe, Arizona

Jon Surbeck
Contract Instructor
Livermore, Colorado

Larry Morabito
Contract Instructor
Carleton, Michigan

This page intentionally left blank.

COURSE RATIONALE

“Leadership Strategies for Community Risk Reduction” (LSCRR) is designed to develop fire service leaders who are committed, in word and deed, to comprehensive multihazard community risk reduction.

COURSE GOALS

The goals of the LSCRR course are to:

1. Develop leaders in comprehensive multihazard community risk reduction.
2. Focus on reducing risk in your community.
3. Create a strategic risk-reduction plan for your community.
4. Reduce civilian death, injury and property loss.
5. Reduce line-of-duty deaths (LODDs) among firefighters.

TARGET AUDIENCE

The target audience for LSCRR is Company Officers (COs), Emergency Medical Services (EMS) providers, fire inspectors, fire marshals, fire chiefs, fire and EMS officers, fire and life safety educators, and other community or allied professionals in community risk reduction.

This page intentionally left blank.

GRADING METHODOLOGY/COURSE EVALUATION PLAN

The following four assessment items comprise the evaluation plan for LSCRR:

Assessment Tool 1: Pre-Course Assignment

A comprehensive pre-course assignment is to be completed by each student before acceptance into class. Students will submit a checklist at least one week prior to class and bring the assignment with them on the first day of class for review.

Units of Course for Criterion Reference: Pre-Course Assignment Workbook; Units 1, 2, 3, 4 and 5.

Assessment Tool 2: Course Midterm Exam

A comprehensive written midterm exam consisting of questions requiring essay responses will be administered to each student. This exam will be administered on Wednesday to enable review and evaluation by the faculty to ascertain progress of students.

Units of Course for Criterion Reference: Units 1, 2 and part of 3.

Assessment Tool 3: Course Final Exam

A comprehensive written final exam consisting of 25 questions will be administered to each student. This exam will be administered on Friday to enable review and evaluation by the faculty.

Units of Course for Criterion Reference: Units 3, 4 and 5.

Assessment Tool 4: Individual Culminating Project

Each student shall present an eight- to 10-minute presentation following a prescribed project presentation evaluation form.

Units of Course for Criterion Reference: Units 1, 2, 3, 4, 5 and 6.

This page intentionally left blank.

EVALUATION PLAN SUMMARY/STUDENT RECORD SHEET

The evaluation plan summary for LSCRR is as follows:

Assessment Item	Total Points	Student Score
Pre-Course Assignment	100	
Midterm Examination	100	
Final Examination	100	
Culminating Project Presentation	100	
Total	400	

Computing the student score: Calculate the total points for each student, and divide by 4. Using the chart below, calculate the letter grade to be awarded to the student. **To successfully complete the course, a minimum of 70 percent must be achieved.** (A letter grade of “C” is required.) Enter the student’s score in the Final Grade column on the Student Roster/Grade Sheet.

Numerical Score	Letter Grade
100-90	A
89-80	B
79-70	C
Less than 70	F

This page intentionally left blank.

GRADING RUBRIC: PRE-COURSE ASSIGNMENT

LSCRR requires completion of a comprehensive pre-course assignment that requires each student to send a checklist in at least one week before class and bring the pre-course assignment with him or her for review and critique on the first day of class.

Units of Course for Criterion Reference: Pre-Course Assignment Workbook; Units 1, 2, 3, 4 and 5.

The instructor will enter the student's score in the overall evaluation plan or record.

Grading Schedule

Grades for this assessment item shall be based on the following scale:

1. Did the student complete Assignment 1: Examination of America's Continuing Fire Problem (20 points)?
2. Did the student complete Assignment 2: Background Information — Your Department and Risk Reduction (20 points)?
3. Did the student complete Assignment 3: Building a Demographic Profile of Your Community (20 points)?
4. Did the student complete Assignment 4: Building a Risk Profile of Your Community (20 points)?
5. Did the student complete Assignment 5: Drilling Down to the Service Area/Neighborhood Level (20 points)?

Scoring

The instructor shall critique the pre-course assignment using the above schedule. Total the number of points for the four rating elements. Enter the student's score in the overall evaluation plan or record.

This page intentionally left blank.

ACTIVITY 6.1: CULMINATING PROJECT ASSESSMENT TOOL

Each student shall present a culminating project that integrates the elements of the activities from the course into a comprehensive risk-reduction plan for the student's home community.

Units of Course for Criterion Reference: Units 1, 2, 3, 4 and 5.

Grading Schedule

Grades for this assessment item shall be based on the following scale:

1. Explained his or her leadership potential and authority for the community risk-reduction issue and vision for a safer community (20 points).
2. Identified and described the priority risk areas for the community and justified the selection of the particular risk issue (20 points).
3. Summarized the implementation/evaluation plan for addressing the selected risk-reduction issue (20 points).
4. Summarized a marketing strategy and identified community partners (20 points).
5. Identified and addressed potential change issues that may arise as a result of the community risk-reduction plan. Summarized key points of plan and stayed within allotted time (20 points).

Scoring

The instructor shall critique the Culminating Project using the above schedule. Total the number of points for the five rating elements. Enter the student's score in the overall evaluation plan or record.

This page intentionally left blank.

ACTIVITY 6.1

Rubric for Assessment Tool — Culminating Project

Directions: For each of the five assessment areas in the left column, rate each on a scale from 5 to 20 points. Place an “X” through one of the five point value areas (Columns 3 to 6). Subtotal at the bottom. Transfer this score to the student’s Individual Culminating Scoring Summary sheet.

Assessment Area	Total Point Value	Poor (5 points)	Fair (10 points)	Good (15 points)	Excellent (20 points)
Explained his or her leadership potential and authority for the community risk-reduction issue and vision for a safer community.	20	Insufficiently explained leadership potential and authority for the community risk-reduction issue and vision for a safer community.	Partially explained leadership potential and authority for the community risk-reduction issue and vision for a safer community.	Satisfactorily explained leadership potential and authority for the community risk-reduction issue and vision for a safer community.	Thoroughly explained leadership potential and authority for the community risk-reduction issue and vision for a safer community.
Identified and described the priority risk areas for the community and justified the selection of the particular risk issue.	20	Insufficiently identified and described the priority risk areas for the community and justified the selection of the particular risk issue.	Partially identified and described the priority risk areas for the community and justified the selection of the particular risk issue.	Satisfactorily identified and described the priority risk areas for the community and justified the selection of the particular risk issue.	Thoroughly identified and described the priority risk areas for the community and justified the selection of the particular risk.
Summarized the implementation/evaluation plan for addressing the selected risk-reduction issue.	20	Insufficiently summarized the implementation/evaluation plan for addressing the selected risk-reduction issue.	Partially summarized the implementation/evaluation plan for addressing the selected risk-reduction issue.	Satisfactorily summarized the implementation/evaluation plan for addressing the selected risk-reduction issue.	Thoroughly summarized the implementation/evaluation plan for addressing the selected risk-reduction issue.
Summarized a marketing strategy and identified community partners.	20	Insufficiently summarized a marketing strategy and identified community partners.	Partially summarized a marketing strategy and identified community partners.	Satisfactorily summarized a marketing strategy and identified community partners.	Thoroughly summarized a marketing strategy and identified community partners.
Identified and addressed potential change issues that may arise as a result of the community risk-reduction plan. Summarized key points of the plan and stayed within allotted time.	20	Insufficiently identified and addressed potential change issues that may arise as a result of the community risk-reduction plan. Poor summary. Over allotted time.	Partially identified and addressed potential change issues that may arise as a result of the community risk-reduction plan. Fair summary. Over allotted time.	Satisfactorily identified and addressed potential change issues that may arise as a result of the community risk-reduction plan. Good summary. Stayed within allotted time.	Thoroughly identified and addressed potential change issues that may arise as a result of the community risk-reduction plan. Excellent summary. Stayed within allotted time.
Total Points	100				

This page intentionally left blank.

INDIVIDUAL CULMINATING SCORING SUMMARY

Name of student: _____

Score: _____

Project Assignment	Point Value	Points Awarded
1. Explained his or her leadership potential and authority for the community risk-reduction issue and vision for a safer community.	20	
2. Identified and described the priority risk areas for the community and justified the selection of the particular risk issue.	20	
3. Summarized the implementation/evaluation plan for addressing the selected risk-reduction issue.	20	
4. Summarized a marketing strategy and identified community partners.	20	
5. Identified and addressed potential change issues that may arise as a result of the community risk-reduction plan. Summarized key points of the plan and stayed within allotted time.	20	
Total	100	

This page intentionally left blank.

SCHEDULE

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
AM	Introduction Unit 1: Getting Ready for Community Risk Reduction	Unit 2: Assessment	Unit 3: Planning, Implementation and Results	Midterm Exam Unit 3: Planning, Implementation and Results (cont'd)	Unit 4: Leading Organizational and Community Change (cont'd)	Final Exam Unit 6: Culminating Project
PM	Unit 1: Getting Ready for Community Risk Reduction (cont'd)	Unit 2: Assessment (cont'd) Work on Culminating Project	Unit 3: Planning, Implementation and Results (cont'd) Review for Midterm Exam	Unit 4: Leading Organizational and Community Change Work on Culminating Project	Unit 5: Building Organizational and Community Equity Review for Final Exam	Unit 6: Culminating Project (cont'd) Course Evaluations Graduation
EVENING	Read Unit 2: Assessment	Read Unit 3: Planning, Implementation and Results	Begin work on Activity 3.11 Read Unit 4: Leading Organizational and Community Change	Read Unit 5: Building Organizational and Community Equity Work on Culminating Project	Finalize Culminating Project Study for Final Exam	

This page intentionally left blank.

FIREFIGHTER CODE OF ETHICS

Background

The Fire Service is a noble calling, one which is founded on mutual respect and trust between firefighters and the citizens they serve. To ensure the continuing integrity of the Fire Service, the highest standards of ethical conduct must be maintained at all times.

Developed in response to the publication of the Fire Service Reputation Management White Paper, the purpose of this National Firefighter Code of Ethics is to establish criteria that encourages fire service personnel to promote a culture of ethical integrity and high standards of professionalism in our field. The broad scope of this recommended Code of Ethics is intended to mitigate and negate situations that may result in embarrassment and waning of public support for what has historically been a highly respected profession.

Ethics comes from the Greek word *ethos*, meaning character. Character is not necessarily defined by how a person behaves when conditions are optimal and life is good. It is easy to take the high road when the path is paved and obstacles are few or non-existent. Character is also defined by decisions made under pressure, when no one is looking, when the road contains land mines, and the way is obscured. As members of the Fire Service, we share a responsibility to project an ethical character of professionalism, integrity, compassion, loyalty and honesty in all that we do, all of the time.

We need to accept this ethics challenge and be truly willing to maintain a culture that is consistent with the expectations outlined in this document. By doing so, we can create a legacy that validates and sustains the distinguished Fire Service institution, and at the same time ensure that we leave the Fire Service in better condition than when we arrived.



FIREFIGHTER CODE OF ETHICS

I understand that I have the responsibility to conduct myself in a manner that reflects proper ethical behavior and integrity. In so doing, I will help foster a continuing positive public perception of the fire service. Therefore, I pledge the following...

- Always conduct myself, on and off duty, in a manner that reflects positively on myself, my department and the fire service in general.
- Accept responsibility for my actions and for the consequences of my actions.
- Support the concept of fairness and the value of diverse thoughts and opinions.
- Avoid situations that would adversely affect the credibility or public perception of the fire service profession.
- Be truthful and honest at all times and report instances of cheating or other dishonest acts that compromise the integrity of the fire service.
- Conduct my personal affairs in a manner that does not improperly influence the performance of my duties, or bring discredit to my organization.
- Be respectful and conscious of each member's safety and welfare.
- Recognize that I serve in a position of public trust that requires stewardship in the honest and efficient use of publicly owned resources, including uniforms, facilities, vehicles and equipment and that these are protected from misuse and theft.
- Exercise professionalism, competence, respect and loyalty in the performance of my duties and use information, confidential or otherwise, gained by virtue of my position, only to benefit those I am entrusted to serve.
- Avoid financial investments, outside employment, outside business interests or activities that conflict with or are enhanced by my official position or have the potential to create the perception of impropriety.
- Never propose or accept personal rewards, special privileges, benefits, advancement, honors or gifts that may create a conflict of interest, or the appearance thereof.
- Never engage in activities involving alcohol or other substance use or abuse that can impair my mental state or the performance of my duties and compromise safety.
- Never discriminate on the basis of race, religion, color, creed, age, marital status, national origin, ancestry, gender, sexual preference, medical condition or handicap.
- Never harass, intimidate or threaten fellow members of the service or the public and stop or report the actions of other firefighters who engage in such behaviors.
- Responsibly use social networking, electronic communications, or other media technology opportunities in a manner that does not discredit, dishonor or embarrass my organization, the fire service and the public. I also understand that failure to resolve or report inappropriate use of this media equates to condoning this behavior.

Developed by the National Society of Executive Fire Officers

A Student Guide to End-of-course Evaluations

Say What You Mean ...

Ten Things You Can Do to Improve the National Fire Academy

The National Fire Academy takes its course evaluations very seriously. Your comments and suggestions enable us to improve your learning experience.

Unfortunately, we often get end-of-course comments like these that are vague and, therefore, not actionable. We know you are trying to keep your answers short, but the more specific you can be, the better we can respond.



Actual quotes from student evaluations:	Examples of specific, actionable comments that would help us improve the course:
1 "Update the materials."	<ul style="list-style-type: none"> The (ABC) fire video is out-of-date because of the dangerous tactics it demonstrates. The available (XYZ) video shows current practices. The student manual references building codes that are 12 years old.
2 "We want an advanced class in (fill in the blank)."	<ul style="list-style-type: none"> We would like a class that enables us to calculate energy transfer rates resulting from exposure fires. We would like a class that provides one-on-one workplace harassment counseling practice exercises.
3 "More activities."	<ul style="list-style-type: none"> An activity where students can physically measure the area of sprinkler coverage would improve understanding of the concept. Not all students were able to fill all ICS positions in the exercises. Add more exercises so all students can participate.
4 "A longer course."	<ul style="list-style-type: none"> The class should be increased by one hour per day to enable all students to participate in exercises. The class should be increased by two days so that all group presentations can be peer evaluated and have written abstracts.
5 "Readable plans."	<ul style="list-style-type: none"> The plans should be enlarged to 11 by 17 and provided with an accurate scale. My plan set was blurry, which caused the dotted lines to be interpreted as solid lines.
6 "Better student guide organization," "manual did not coincide with slides."	<ul style="list-style-type: none"> The slide sequence in Unit 4 did not align with the content in the student manual from slides 4-16 through 4-21. The instructor added slides in Unit 4 that were not in my student manual.
7 "Dry in spots."	<ul style="list-style-type: none"> The instructor/activity should have used student group activities rather than lecture to explain Maslow's Hierarchy. Create a pre-course reading on symbiotic personal relationships rather than trying to lecture on them in class.
8 "More visual aids."	<ul style="list-style-type: none"> The text description of V-patterns did not provide three-dimensional views. More photographs or drawings would help me imagine the pattern. There was a video clip on NBC News (date) that summarized the topic very well.
9 "Re-evaluate pre-course assignments."	<ul style="list-style-type: none"> The pre-course assignments were not discussed or referenced in class. Either connect them to the course content or delete them. The pre-course assignments on ICS could be reduced to a one-page job aid rather than a 25-page reading.
10 "A better understanding of NIMS."	<ul style="list-style-type: none"> The instructor did not explain the connection between NIMS and ICS. The student manual needs an illustrated guide to NIMS.

This page intentionally left blank.

UNIT 1: GETTING READY FOR COMMUNITY RISK REDUCTION

TERMINAL OBJECTIVE

The students will be able to:

- 1.1 *Summarize the role of the champion in supporting strategic community risk reduction.*

ENABLING OBJECTIVES

The students will be able to:

- 1.1 *Describe strategic community risk reduction.*
 - 1.2 *Define community.*
 - 1.3 *Explain the value of managing risk.*
 - 1.4 *Analyze their responsibility in community risk reduction.*
 - 1.5 *Develop a personal vision of a safer community.*
 - 1.6 *Evaluate their current and future authority in supporting community risk reduction.*
-

This page intentionally left blank.



UNIT 1: GETTING READY FOR COMMUNITY RISK REDUCTION

Slide 1-1

ENABLING OBJECTIVES

- Describe strategic community risk reduction.
- Define community.
- Explain the value of managing risk.
- Analyze your responsibility in community risk reduction.

Slide 1-2

ENABLING OBJECTIVES (cont'd)

- Develop a personal vision of a safer community.
- Evaluate your current and future authority in supporting community risk reduction.

Slide 1-3

I. INTRODUCTION

INTRODUCTION

- 1947 — The President’s Conference.
- 1973 — “America Burning” (three editions).
- 2000 — all-hazards community risk reduction.
 - Resources supported community risk reduction.
- 2008 — Great Recession.

Slide 1-4

A. Throughout history, progress has been made to reduce the occurrence of fire in the United States.

1. 1947 — President Truman called a conference known as The President’s Conference on Fire Prevention in May 1947.

The publication can be viewed at <http://www.usfa.fema.gov/downloads/doc/47report/building.doc>.

2. 1973 — President Nixon’s initiative to investigate the effects of fire resulted in the report titled “America Burning.”

The publication can be viewed at <http://www.usfa.fema.gov/downloads/pdf/publications/fa-264.pdf>.

3. The recommendations published in the first “America Burning” report resulted in some of the following actions being initiated:

- a. Greater focus on fire safety and public education.
- b. Development of technology such as smoke alarms.
- c. Enactment of laws that required sprinklers in certain types of occupancies.
- d. Better training for firefighters.
- e. Ultimately, the creation of the National Fire Academy (NFA).

4. In 1987, a second “America Burning” report titled “America Burning Revisited” called for greater use of combined strategies to prevent or reduce the effects of fire.

The publication can be viewed at <http://www.usfa.fema.gov/downloads/pdf/publications/5-0133-508.pdf>.

5. That call was again made through a third report, “America At-Risk — America Burning Recommissioned,” which was released in 2002.

The publication can be viewed at <http://www.usfa.fema.gov/downloads/pdf/publications/fa-223-508.pdf>.

6. The final report of the “America Burning” series reached two major conclusions:
 - a. The frequency and severity of fires in America is a result of our nation’s failure to adequately apply and fund known loss-reduction strategies.
 - b. Firefighters and the communities they serve would benefit if the dedication to avoiding loss from fires and other hazards was equal to the dedication shown in firefighting and rescue operations.

- B. As we ascended toward the year 2000, many advocates for injury prevention encouraged the fire service to promote the concept of all-hazards community risk reduction.

1. For many fire and emergency services departments, this was a shift in thinking from delivering traditional fire prevention education programs to a risk-reduction program focusing on all-hazards.
2. The strategy was a sound one because many more people are injured or killed each year from incidents such as car crashes and falls as compared to fires.
3. This shift in thinking mirrors other shifts as departments not only extinguish fires but also provide Emergency Medical Services (EMS), hazardous material response, and technical rescue service.

- C. Many fire departments embraced the task of providing all-hazards community risk reduction.

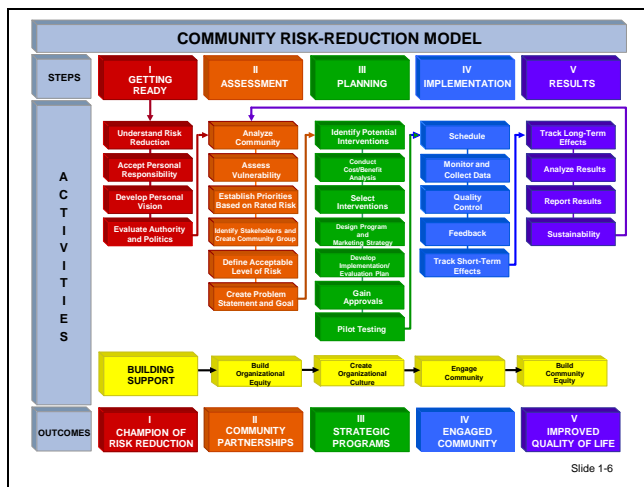
1. Personnel (both career and volunteer) engaged in proactive community risk reduction.

- a. In-kind donations, such as smoke alarms, child safety seats, and stair rails for older adults, were donated by manufacturers and retail outlets.
 - b. Financial resources such as grants were available from corporations, the insurance industry, and the federal government.
 2. Many people engaged in community risk reduction sought training that promoted taking a strategic approach to preventing and reducing the effects of risk.
- D. The economic recession (nearly depression) that rocked America starting in 2008 also impacted the ability of our industry to provide proactive risk-reduction service to the communities we serve.
1. Faced with the necessity of providing response services, many organizations were forced to downsize or, in many cases, eliminate prevention units.
 2. Not only were risk-reduction services curtailed, some fire departments were forced to furlough or lay off emergency responders.
 3. Overall, approximately 68 percent of respondents reported that they had experienced fire prevention staff cuts. For departments that provide a particular service, the order of cuts was:
 - a. Public education (71 percent).
 - b. Inspection services (64 percent).
 - c. Plan review (40 percent).
 - d. Fire investigation (31 percent).
 4. For departments identifying as mostly career, approximately 68 percent reported fire prevention staff cuts. For those departments that provide a particular service, the order of cuts was:
 - a. Public education (75 percent).
 - b. Inspection services (62 percent).
 - c. Plan review (40 percent).
 - d. Fire investigation (39 percent).

5. For departments identifying as volunteer, approximately 31 percent reported fire prevention staff cuts. For those departments that provide a particular service, the order of cuts was:
 - a. Public education (87 percent).
 - b. Inspection services (39 percent).
 - c. Fire investigation (25 percent).
 - d. Plan review (21 percent).
 6. This survey demonstrates that given a preference, public education services are sacrificed first in local fire departments with any level of career staffing, followed by inspection services. The difference in cuts grows wider as the dependence on career staffing decreases (Source — Vision 20/20, 2013).
- E. As a result of the Great Recession, most communities were forced to streamline their general operations, so they became leaner and more efficient.
1. As part of that process, communities were forced to employ a strategic process of learning how to do more with less while still maintaining efficient service.
 2. In sum, it entailed doing the same thing that has been recommended as a strategy to better address America's fire and preventable injury problem:

Use a combination of strategies to address priority issues in the most effective and efficient manner possible.
- F. The days of having a unit dedicated to community risk reduction may be over.
- G. If you do have a person or team that is responsible for leading community risk reduction, you are fortunate.
- H. The role of leading community risk reduction has become the responsibility of company-level officers in many communities.

II. UNDERSTANDING STRATEGIC COMMUNITY RISK REDUCTION



UNDERSTANDING STRATEGIC COMMUNITY RISK REDUCTION

- What is community risk reduction?
 - Community risk reduction integrates emergency response with prevention. Community risk reduction involves identifying and prioritizing risks, selecting and implementing strategies, monitoring and evaluating activities, and involving community partners, all in an effort to better protect residents and firefighters.

Slide 1-7

A. What is community risk reduction?

- Community risk reduction integrates emergency response with prevention. Community risk reduction involves identifying and prioritizing risks, selecting and implementing strategies, monitoring and evaluating activities, and involving community partners, all in an effort to better protect residents and firefighters (National Fire Protection Association (NFPA) 1452, *Guide for Training Fire Service Personnel to Conduct Community Risk Reduction*, 2015 ed.).

VIDEO

“COMMUNITY RISK REDUCTION”

<http://www.strategicfire.org/resources/videos/>

Slide 1-8

2. Strategic community risk reduction will look a little different in each community, depending on the risks present in that community and the resources that are available to address them.

UNDERSTANDING STRATEGIC COMMUNITY RISK REDUCTION (cont'd)

- Community risk reduction helps you:
 - Identify risks.
 - Prioritize risks.
 - Determine how to prevent/mitigate risks.
 - Focus efforts.
 - Become more of a community player.
 - Provide value-added services.
 - Improve quality of life.

Slide 1-9

3. Community risk reduction is an approach that helps you:
- a. Identify fire and life safety risks.
 - b. Prioritize those risks.
 - c. Determine how to prevent or mitigate risks.
 - d. Focus your efforts.
 - e. Become more of a community player.
 - f. Provide value-added services — providing services that residents do not expect.

- g. Improve the quality of life in your community.
- 4. Within the fire service context, this means that fire departments exist not only to respond to emergencies after the fact but also to prevent or reduce the effects of their occurrence in the first place.
- 5. It assumes that the fire service will act proactively as a risk-reduction entity for its community. It also assumes that the fire service will partner with other community organizations as needed to accomplish its risk-reduction objectives.
- 6. By working proactively and with community partners, the fire service will be able to provide the highest level of protection.

UNDERSTANDING STRATEGIC COMMUNITY RISK REDUCTION (cont'd)

- Community risk reduction is not a new concept.
 - Done abroad for decades.
 - In the United States sporadically.
 - Can be a challenge in busy stations.

Slide 1-10

- 7. Community risk reduction is not a new concept.
 - a. United Kingdom (U.K.), New Zealand and Australia have been doing Integrated Risk Management (IRM), as it is known there, for over a decade.

VIDEO

“MERSEYSIDE FIRE & RESCUE
SERVICE 10 YEAR MOVIE”

<https://www.youtube.com/watch?v=1b51yX5A5jg>

Slide 1-11

- b. Community risk reduction is not a new concept for fire service in the U.S. For years, fire departments have been involved in some community risk reduction through building inspection, public education, fire investigation and plan review.
- c. Often done sporadically and on a much smaller scale compared to countries previously mentioned.
- d. Some U.S. fire departments have found it hard to integrate into a busy, resource-challenged fire department.
- e. It has been easy to “marginalize” as optional extras, and this does not harness the important talents and influence of fire departments.

**UNDERSTANDING STRATEGIC
COMMUNITY RISK REDUCTION (cont'd)**

- Why your fire department needs community risk reduction:
 - Budgets being trimmed.
 - Communities facing new hazards.
 - Demographics are changing.
 - Need to reach high-risk groups.

Slide 1-14

- 8. Why we need community risk reduction.
 - a. City and fire service budgets are being slashed.
 - b. Facing new and emerging hazards.
 - c. Community demographics are changing.
 - d. Still not reaching those at high risk.

UNDERSTANDING STRATEGIC COMMUNITY RISK REDUCTION (cont'd)

- Improves firefighters' safety.
- Decision-makers questioning productivity and expense of fire departments.
- Community risk reduction is an investment in the community.

Slide 1-15

- e. Firefighters' safety and occupational health.
 - f. Decision-makers are often questioning what firefighters are doing with their time when not responding to calls.
9. Community risk reduction is an investment in the community.

UNDERSTANDING STRATEGIC COMMUNITY RISK REDUCTION (cont'd)

Investments	Expenses
Prevention	Response
Preparedness	Recovery
Mitigation	Treatment
Resiliency	Rehabilitation

Slide 1-16

Investments	Expenses
Prevention	Response
Preparedness	Recovery
Mitigation	Treatment
Resiliency	Rehabilitation

- a. Failure to invest is accepting a high level of risk. No return on investment with response, recovery.
- b. One could say there is a return on investment with treatment and rehabilitation, but the costs far outweigh preventive measures.

10. Michigan State University study (<http://www.cip.msu.edu/cip.pdf>).

A 2000 survey conducted on emergency planning and recovery reveals how important proper planning can be.

- a. Most businesses do not have an emergency or recovery plan, even though they know it is important.
- b. A total of 47 percent of businesses that experience a fire or major theft go out of business within two years.
- c. A total of 44 percent of companies that lose records in a disaster never resume business.
- d. A total of 93 percent of companies that lose records in a disaster never resume business.
- e. The majority of businesses spend less than 3 percent of their total budget on business recovery planning.

**UNDERSTANDING STRATEGIC
COMMUNITY RISK REDUCTION (cont'd)**

- Characteristics of strategic community risk reduction:
 - Proactive.
 - Strategic.
 - Integrated.
 - Community-based.
 - Data-driven.
 - Community partners.
 - Effective.

Slide 1-17

11. Characteristics of strategic community risk reduction.

- a. Proactive — anticipates.
- b. Strategic — deliberate and thoughtful.
- c. Integrated — balances emergency response and prevention.
- d. Community-based — ideally fire station-based.
- e. Data-driven — fire/EMS, hospital data, demographics, housing, etc.

- f. Community partners — involved.
 - g. Effective — reduces risk.
12. When addressing community risk, a strategic approach is called for:
- a. An objective decision to be made on what risk(s) to address.
 - b. Creation and execution of a plan that applies multiple intervention strategies focusing on the root causes of risk and its impacts on the community.
 - c. The plan would be deliberate, thoughtful and cost-effective and include a funding strategy, a mechanism for evaluating how the program is performing, and a method for sustainment.

DEFINING COMMUNITY

Group of people connected by visible and invisible links.

- May have physical or political boundaries.
- Shared concerns or interests.

Slide 1-18

B. Defining community.



A community is a group of people connected by visible and invisible links. Communities are defined in different ways (Gutmacher, Kelly and Ruiz-Janecko, 2010).

- 1. Geographic communities have physical or political boundaries.
- 2. Communities of interest have shared concerns or interests bringing people together. These can include race and ethnicity or national background.
 - a. These can be further broken down into people's work, school or other forms of activity.
 - b. From there, these can be broken down into grade levels and roles, for example.

3. Defining community is important to community risk reduction.
4. How a target community is defined determines how resources will be allocated, how an intervention will be delivered, and how a message will be framed (Guttmacher, Kelly and Ruiz-Janecko, 2010).

VALUE OF MANAGING RISK

- Risk is always present.
- Manage in a deliberate way.
- Government responsibility.



Slide 1-20

C. The value of managing risk.

1. Risk is something that all of us encounter, whether we are in our homes, at work or on the go.
2. Dealing with risks is an everyday part of life. It is not some “special” activity that relates only to particular people with certain jobs.
3. Some type of risk is always present.
4. The value of deliberate risk management comes from handling risk in a planned way instead of just accepting or allowing consequences of events to affect you without forethought or preparation.
5. Managing risk in the community.
 - a. Risk management is something we often see in our own communities.
 - b. There are many risks to the public at large, and our various levels of government spend a good deal of time trying to identify those.
 - c. Once risks are identified in the community, many factors go into the process of deciding if something could or should be done and exactly how to do that.

- d. Communities manage risk by adopting a range of prevention, protection, mitigation, response and recovery measures.

D. Impact of community risk reduction.

VALUE OF MANAGING RISK (cont'd)

- Mission statements often include terms:
 - Protecting people and property.
 - Health.
 - Safety.
 - Quality of life.

Slide 1-21

Mission statements and strategic plans.

1. Many cities and towns mention such words as:
 - a. Protecting people and property.
 - b. Health.
 - c. Safety.
 - d. Quality of life.
2. It is an expectation of elected officials and city managers that our industry is working to reduce risks.

NATIONAL COMMUNITY RISK- REDUCTION CAMPAIGNS

- National Fallen Firefighters Foundation (NFFF).
 - Everyone Goes Home®.
 - The 16 Firefighter Life Safety Initiatives.
 - See www.everyonegoeshome.com/.




Slide 1-22

E. National community risk-reduction campaigns.

1. Everyone Goes Home® is an initiative led by the National Fallen Firefighters Foundation (NFFF) to prevent firefighter line-of-duty deaths (LODDs) and injuries.
 - a. In March 2004, a Firefighter Life Safety Summit was held to address the need for change within the fire service.
 - b. At this summit, the 16 Firefighter Life Safety Initiatives were created and a program was born to ensure that Everyone Goes Home.
 - c. The goal of the NFFF is to help the U.S. Fire Administration (USFA) achieve its objective of reducing the number of preventable firefighter fatalities.
 - d. Two of the 16 initiatives pertain to community risk reduction.
 - Initiative 14: Public education must receive more resources and be championed as a critical fire and life safety program.
 - Initiative 15: Advocacy must be strengthened for the enforcement of codes and the installation of home fire sprinklers.
2. The Everyone Goes Home website is <http://www.everyonegoeshome.com/>.

NATIONAL COMMUNITY RISK-REDUCTION CAMPAIGNS (cont'd)

- Vision 20/20.
 - Initiated 2008.
 - Valuable resources.
 - Strategic approach to community risk reduction.
 - See www.strategicfire.org/.



Bridging the gap from yesterday into tomorrow

Slide 1-23

3. In 2008, an ad hoc group of organizations and individuals interested in focusing on and improving fire prevention efforts in the U.S. initiated the Vision 20/20 project.

- a. These veteran fire service leaders recognized that, while fire loss statistics in the U.S. had improved since the 1970s, progress had not equalized what was occurring in other industrialized nations.
 - b. This vision led to a 2008 national forum in Washington, D.C., where over 500 prevention personnel participated in Web-based preplanning meetings.
 - c. At the 2008 forum, 200 leaders in fire prevention identified strategies in specific areas that had the greatest potential to reduce fire losses in the U.S.
 - d. In addition, an “umbrella” initiative was added that focused on promoting model measurement of prevention programs.
 - e. The report from the forum and the guiding document for Vision 20/20, “National Strategies for Fire Loss Prevention,” focused on perceived gaps in our collective national fire prevention efforts.
 - f. These strategic areas were not new and, in fact, had been mentioned in previous national fire protection plans dating back to 1913.
 - g. Since 2008, the Vision 20/20 project and its host organization, the Institution of Fire Engineers, U.S. Branch, have secured additional grants and donations from the private sector to achieve progress in each strategic initiative.
- Strategy 1: Prevention Advocacy.
 - Advocate the value of prevention programs external to the fire service from a public policy perspective.
 - Strategy 2: Prevention Marketing.
 - Promote a national social marketing/education campaign designed to reach the general public in a sustained and cohesive fashion.
 - Strategy 3: Prevention Culture.
 - Raise the importance of fire prevention within the fire service by focusing on integrating emergency operations, prevention and other mitigation strategies.

- Strategy 4: Prevention Technology.
 - Identify and promote technologies that will improve fire prevention efforts nationally.
- Strategy 5: Prevention Codes and Standards.
 - Promote the involvement of the fire service in the development, adoption and enforcement of codes and standards for the built environment.

4. Vision 20/20 and Model Prevention Evaluation Measures.

Vision 20/20 supports a sustained, collaborative effort to raise the level of importance for prevention within the fire service through a continuum of activities, such as:

- a. Regional Model Prevention Evaluation Measures workshops and online training.
- b. National Model Performance in Fire Prevention Symposia.
- c. Case Studies Clearinghouse at the USFA's Education Exchange.

5. Fire is Everyone's Fight®.

VIDEO

"FIRE IS EVERYONE'S FIGHT"

[http://www.usfa.fema.gov/prevention/
outreach/fief/](http://www.usfa.fema.gov/prevention/outreach/fief/)

Slide 1-24

NATIONAL COMMUNITY RISK-REDUCTION CAMPAIGNS (cont'd)

- Fire is Everyone's Fight®.
 - Tag line.
 - Designed to unite fire service and others.
 - Valuable resources.
 - See <http://www.usfa.fema.gov/prevention/outreach/fief/>.



Slide 1-25

- a. Fire is Everyone's Fight is a tag line and not a specific risk-reduction program.
- b. Tag lines are slogans that promote an overall theme. Examples of tag lines pertinent to risk reduction include:
 - Only You Can Prevent Forest Fires.
 - Everyone Goes Home.
- c. Fire is Everyone's Fight is designed to unite the fire service and others in a collaborative effort to reduce home fire injuries, deaths and property loss.
- d. It invites fire departments, safety advocates, community groups, schools and others to rally behind a common and compelling theme.
- e. By doing so, USFA and its partners will communicate and reinforce key lessons across fire safety and prevention initiatives and programs.
- f. You can find out more about the initiative and how you can become involved by visiting the website: <http://www.usfa.fema.gov/prevention/outreach/fief/>.
- g. Once on the site, you can register to use the theme's graphic.
- h. Upon registering, you will be provided access to several resource pages that contain:
 - A variety of graphic formats.

- Graphic usage guidelines.
 - Public service announcements (PSAs).
 - Downloadable and customizable materials to use in your own programs.
- i. After registering, you will also be invited to join the Fire is Everyone's Fight community. This will give you a forum to discuss ideas, pose questions, and share materials and events with other partners.
 - j. The USFA has other fire and life safety campaigns that focus on smoke alarms, older adults, babies and toddlers, and smoking. You can find all of these resources by visiting the USFA website.
 - k. National campaigns are only as good as the fire departments using them.

III. ACCEPTING PERSONAL RESPONSIBILITY FOR REDUCING COMMUNITY RISK

ACCEPTING PERSONAL RESPONSIBILITY FOR REDUCING COMMUNITY RISK

- View Ms. Vina Drennan on video.
- Respond to the question:
 - How does her message relate to taking a strategic approach to community risk reduction?

Slide 1-26

DVD PRESENTATION

“VINA DRENNAN”



Slide 1-27

ACCEPTING PERSONAL RESPONSIBILITY FOR REDUCING COMMUNITY RISK (cont'd)

- The general public still trusts our industry as a reliable source for advice.



Slide 1-28

- A. The emergency services are viewed as a credible and trusted source of information.
- B. The general public and decision-makers rely on the emergency services to provide knowledge, predict trends, and offer advice on how to protect the community from harm.

YOU CAN INFLUENCE THE FUTURE OF RISK REDUCTION

Each new day offers an opportunity for change.



Slide 1-29

- C. Our industry has the legitimate authority to influence the development of rules that require standards of behavior from the general public. We can influence the future.

THE ROLE OF THE COMMUNITY RISK-REDUCTION CHAMPION

- Supports community risk reduction.
- Works strategically.
- Collaborates.
- Manages the process.
- Mentors.
- Coaches.



Slide 1-31


- D. The role of the community risk-reduction champion.
1. The champion is a strategist who helps create and support risk-reduction initiatives at the primary and secondary levels.
 2. He or she should help lead and manage the process of identifying and prioritizing community risk.
 3. In addition to leading the risk-reduction effort, the champion must support those who are involved actively in the ongoing process.
 4. The champion should be involved in the process of working **strategically** to mitigate targeted risks. This includes helping to propose public policy that supports risk reduction.

5. All levels of prevention intervention (the Five Es) require some form of policy to ensure use.
- E. When citizens and decision-makers understand existing and potential risks, they are better prepared to partner with our industry to address challenges.
- F. Many benefits exist to those who live, work or invest in a safe community.
- G. While there are many benefits associated with safer communities, the process of attaining success is not as easy as it sounds.
- H. Champions of risk reduction can have tremendous influence over risk reduction in their local communities.

IV. COMMON ELEMENTS OF SUCCESSFUL RISK REDUCTION

**COMMON ELEMENTS OF
SUCCESSFUL RISK REDUCTION**

- Individual commitment.
- Organizational support.
- Community support.



Slide 1-35

- A. Individual commitment.
 1. At the center of every successful risk-reduction effort, a catalyst is found.
 2. These people often are motivated visionaries with great enthusiasm and organizing skills.
 3. One of the greatest contributors to a dysfunctional or absent risk-reduction program is lack of support from leadership toward peers/subordinates who are motivated toward reducing community risk.
- B. Organizational support.

1. Members in an organization that has institutionalized risk reduction as a core value (leadership to new staff) willingly provide support to enhance risk-reduction efforts.
2. Resources in the form of attention, time, people, equipment and funding are dedicated to supporting the process.
3. A stagnant organizational culture can be a **major** detractor to risk reduction.
4. The peer pressure that's present in a firehouse kitchen can either enhance or destroy organizational support for risk reduction.
5. Support for reducing community risk should originate at the top of the organizational structure and transcend through the ranks.
6. Cooperative organizational support is an essential component of risk reduction that should be solidified **prior** to asking the community for help.
7. If an organization at large does not support reducing risk, how can a community be expected to exhibit buy-in?

C. Community support.

1. The community must know about and understand local threats before it can get behind an effort to reduce risk.
2. The fire service remains a credible and trusted source of advice to the local community.
3. A community that understands what is wrong and how it plays a role in solving the problem is better positioned to help reduce risk.

This page intentionally left blank.

ACTIVITY 1.1

Current Risk-Reduction Programs

Purpose

Analyze your responsibility, as the champion, in community risk reduction.

Directions

1. Individually, identify the following for your home community.
 - a. Provide a brief overview of your department's involvement in community risk reduction.

 - b. Who is responsible for managing the community risk-reduction efforts?

 - c. What percentage of the department's budget is spent on risk-reduction programs?

- d. In your opinion, how strategic is your overall community risk-reduction effort?
- _____
- _____
- _____
- _____
2. Next, work in table groups, and share your current efforts in community risk reduction. Select one community within your group that is considered by the group to be most active in achieving its community risk-reduction goals.
3. For your selected community, answer the following:
- a. How effective has the community been in preventing and mitigating incidents through risk-reduction efforts?
- _____
- _____
- _____
- _____
- b. How strategic is the community risk-reduction effort? Justify your answer.
- _____
- _____
- _____
- _____
- c. How is the program evaluated?
- _____
- _____
- _____
- _____

4. The instructor will call on individuals from the selected communities to share their programs.

This page intentionally left blank.

V. DEVELOPING PERSONAL VISION

DEVELOPING PERSONAL
VISION

- Change begins with a vision.
- Vision of what your community could be as the result of proactive community risk-reduction initiatives.

Slide 1-38

- A. Personal, organizational and community changes always begin with a vision of what the future can be.

Great movements throughout history have begun with one person's vision of what can be.

- B. Many communities mention words such as protecting people and property, health, safety and quality of life in their vision and mission statement. The champion must begin the process of community risk reduction with his or her own future vision of the community.
- C. The mission of the fire service must be to prevent harm in the community.
1. A safe and vital community cannot happen if the champion is not personally committed to the philosophy of prevention (preparedness and mitigation).
 2. This commitment must be expressed through action, not simply intellectual understanding.
- D. A vision is a word picture of what your community could be as a result of risk-reduction initiatives of which you are the catalyst or supporter.
1. Easy to understand.
 2. Uses plain language.
 3. Relevant to what the organization does.

VISION STATEMENT EXAMPLES

- The residents of and visitors to Nashville will have a safe environment in which to enjoy our beautiful city.
- The city of Sterling will be a safe and healthy community to live in and visit.

Slide 1-39

4. Vision statement examples:

- Pompano Beach will be a safer community.
- Cedar Hill will be safe with an enhanced quality of life.
- The residents and businesses in the city of Vista will be safe from local and regional disasters and emergencies.
- The residents of and visitors to Nashville will have a safe environment in which to enjoy our beautiful city.
- Clark County Fire District 6 will be a community where all the residents will be safe and prepared for emergencies.
- The residents and visitors of the San Ramon Valley will be safe from risk with one of the highest qualities of life in the region.
- The city of Sterling will be a safe and healthy community to live in and visit.
- The city of Newton will be a safe, healthy community with economic vitality, controlled growth, and a robust quality of life.

ACTIVITY 1.2

A Safer Community Begins With a Personal Vision

Purpose

Create a personal vision of what your community could be as a direct result of strategic community risk reduction.

Directions

Part 1

1. Refer to your pre-course Assignment 2. Recall that you considered the knowledge, attitudes and behaviors that are necessary from the following groups to support prevention and/or mitigation of any risk:
 - a. City/County/Township administration (i.e., manager).
 - b. Local political leaders.
 - c. Citizens at large.
2. Respond to the following questions:
 - a. How is the fire department viewed by city/county/township administration, local political leaders, and the citizens at large?
 - b. How do you engage decision-makers and the public so your department receives an adequate level of support?
 - c. What public and private partnerships does your organization have that are helping to support risk-reduction efforts?

Part 2

1. Recall from your pre-course assignment that you considered the knowledge, attitudes and behaviors that are necessary from the following groups to support prevention and/or mitigation of any risk:
 - a. Executive leadership of your organization.
 - b. Midlevel officers from your organization.
 - c. Line staff from your organization.

2. Does your organization's mission statement reflect prevention as a core objective?

3. Is health, safety or quality of life mentioned in the mission statement of your city, county or township? What is the value of having your department's mission statement align with the municipality's mission statement?

4. What level of resources (time, people and money) does your organization invest into risk reduction?

5. Does your organization have a position dedicated to risk reduction?

6. What could your organization be doing to advance overall prevention activities at the local level to support your municipality's mission and strategic plan? Include responses to both man-made and naturally occurring risks.

7. After considering responses to the above, create a personal vision that expresses what your community could be as a direct result of strategic community risk reduction.
8. You will have 35 minutes to complete Parts 1 and 2.

This page intentionally left blank.

VI. EVALUATING YOUR CURRENT AND FUTURE AUTHORITY

EVALUATING YOUR CURRENT AND FUTURE AUTHORITY

- How will you use your legitimate authority?
- Can you advance risk reduction? Will you?
- Your behaviors affect the culture!



Slide 1-41

EVALUATING YOUR CURRENT AND FUTURE AUTHORITY (cont'd)

- As career progresses — authority follows.
- How you use authority affects the future success of risk reduction.
- Your knowledge and attitude have a huge influence over the opinion of peers and those under your command.

Slide 1-42

- A. As a champion's career progresses, he or she attains greater levels of legitimate authority to influence and support community risk reduction.
- B. How he or she uses that authority affects the future success of risk reduction.
- C. The champion's knowledge level and attitude toward risk reduction have a huge influence over the opinions of peers and subordinates toward the subject.

EVALUATING YOUR CURRENT AND FUTURE AUTHORITY (cont'd)

- Your role — strategist, coach, mentor and leader.
- You can help facilitate change.

Slide 1-43

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- D. The champion's role in risk reduction is that of a strategist, coach, mentor and — most importantly — leader.
- E. The champion has a responsibility to help facilitate an organizational and community culture that values reducing risk. This includes supporting peers, subordinates and citizens who willingly participate in the process.
- F. When promoted, a champion carries authority to require supportive behavior from subordinates who have potential to negatively affect an organization's culture.
- G. A champion has responsibility to help lead, support and sustain a community risk-reduction process.
- H. The event that does not happen or occurs with less severity is the event that does not cause an LODD.

ACTIVITY 1.3

Evaluating Your Current and Future Authority and Political Factors

Purpose

Explore the following factors that affect community risk reduction:

- Identify the level of authority that you currently hold over community risk-reduction initiatives offered by your organization.
- Reflect upon and discuss your attitude toward preventing/mitigating risks that challenge your home community.
- Identify and discuss past behaviors that you have displayed in support of community risk reduction.
- Project your future role in community risk reduction.
- Examine political factors internally or externally that may challenge risk reduction at the local level.

Directions

Part 1

Working individually, provide a succinct bullet point summary of the following questions:

1. What is your current level of authority held over community risk-reduction initiatives offered by your organization?

2. What is your personal attitude toward preventing/mitigating risks that challenge your community?

3. What past actions have you taken to support risk-reduction initiatives offered by your organization?



4. Continuing on your present career path, what may be your next level of responsibility for reducing community risk?

5. What political issues (internal and external) must be overcome to garner support for your personal vision of a safer community?

Part 2

Share your responses with other members of your table group.

VII. SUMMARY



SUMMARY

- Described strategic community risk reduction.
- Defined community.
- Value of managing risk.
- Your responsibility.
- Developed personal vision.
- Evaluated current and future authority.

Slide 1-45

This page intentionally left blank.

REFERENCES

Department of Homeland Security. IS-454: Fundamentals of Risk Management, 2014.

Guttmacher, S., Kelly, P.J., and Ruiz-Janecko, Y. Community-Based Health Interventions. Hoboken, NJ: John Wiley and Sons, 2010.

Michigan State University. The Critical Incident Protocol — A Public and Private Partnership. Published June 2000 under a grant from the Office for Domestic Preparedness. Retrieved from <http://www.cip.msu.edu/cip.pdf>. Sept. 9, 2014.

NFPA. NFPA 1452, *Guide for Training Fire Service Personnel to Conduct Community Risk Reduction*. 2015 ed. Quincy, MA.

Vision 20/20. A Project of the Institution of Fire Engineers, USA Branch. Retrieved from <http://strategicfire.org>. Sept. 9, 2014.

This page intentionally left blank.

APPENDIX

MERSEYSIDE FRS: INNOVATION TO MAINSTREAM

This page intentionally left blank.



Final Evaluation of the Home Fire Risk Check Grant and
Fire Prevention Grant Programmes – Case Studies
Fire Research 2/2009



www.communities.gov.uk
community, opportunity, prosperity



Final Evaluation of the Home Fire Risk Check Grant and
Fire Prevention Grant Programmes – Case Studies
Fire Research 2/2009

Nina Williams and Rachel Evans
Greenstreet Berman Ltd

March 2009
Department for Communities and Local Government

6 Merseyside FRS: Innovation to mainstream

This case study aims to demonstrate Merseyside FRS's approach to developing innovative and forward-thinking programmes of activity under the Home Fire Risk Check (HFRC) grant and Fire Prevention Grant (FPG); and how they were able to 'mainstream' these programmes in order to ensure their continuity and sustainability.

6.1 Setting the scene

"Why not?"

This question, as opposed to "Why?" is a core attitude within Merseyside FRS. Finding reasons to do something to improve the safety of the community is seen as a far more sensible use of energy than trying to imagine why things may not work. It is felt that individuals are key to the success of any organisation and it is this type of approach that creates an innovative-friendly environment.

Merseyside, like many FRSs, previously saw its main role as that of being reactive to emergencies with little time spent doing other activities – the culture being that everyone was too busy fighting fires to participate in community safety work. However, a change of thinking in the late 1990s recognised that a very rapid emergency response alone was not going to reduce the high rate of fire deaths. What was needed was a radically different approach that was based on prevention and that firefighters would be at the heart of that new approach.

At the end of 1999, the Fire Authority agreed to commit financial and human resources to community safety and Merseyside changed its approach with an aim of creating a proactive prevention response to match the continuing excellent emergency response.

As fire prevention became a fundamental role of firefighters, there was a need to communicate the importance of this work to all staff, as this new approach was not always easily accepted within the FRS. It was important that leadership at all levels accepted this new way of working in order to change the culture within Merseyside FRS.

Home Fire Safety Checks (HFSCs) have also formed an important part of our operational intelligence gathering framework. If crews or advocates come across operational risks (eg the presence of something unusual) then they can ensure that responding crews are made aware of the risk to assist in operational dynamic planning.

6.2 Provision of HFRC grant and FPG

All grant monies provided created a catalyst for the work of Merseyside FRS as they made it possible for the FRS to be creative and innovative in its approach to developing new strands of activity. They had already created resources to support new initiatives.

For example, the FRS was previously spending £600,000 on their HFSC programme. When the 'new' money came from the Government in the form of the HFRC grant, the FRS did not reduce their existing commitment, but regarded the 'new' money as additional resource. They therefore had a significant amount more to develop their community safety work.

They had previously considered innovation and development in their budget planning and created a 'Contestable Research Fund' (£25,000 per annum) that could be bid against by potential researchers and focuses particularly on Liverpool's three universities.

Even in their capital budget they had factored in a £50,000 per year amount to support community safety initiatives. Even with this thorough financial planning, the grants provided further impetus to a range of activities including:

- Advocate and partnership work.
- Sprinklers – installation of domestic sprinklers in homes of high risk residents: an example of someone helped by this scheme is of a woman who was a great risk due to significant mental health problems compounded by a mixture of medication and alcohol. The risk extended to her three year old daughter and they had both been the subject of bullying from some local young people which had lead her to block many of the exits to her home. The FRS installed a domestic sprinkler which delighted her social worker as she had been very concerned for the safety of the child. Measures were also taken in partnership with the Police Hate Crime Unit to deter any would-be attackers.
- Threat response – arson and terrorism; and arson/antisocial behaviour reduction.
- Volunteer work through the charity Fire Support Network – the FRS set up an independent charitable arm of the service, to provide greater organisation of volunteer work and access to additional and alternative sources of funding.
- A range of youth engagement schemes including the 'embedded firefighter scheme' which sees a firefighter in a school for one day a week during term time. The scheme was piloted using the FPG and now extends to 20 schools. A range of material is available to deter children from anti-social behaviour including Street Heat which is a hard hitting interactive production allowing children to explore the consequences of deliberate fire-setting.



Street-cage soccer run by the Fire Support Network

6.2.1 Outcomes of the HFRC/FPG funded activities

Examples of the outcomes of the HFRC/FPG supported activities include a reduction in dwelling fires and non-fatal fires. Figure 6.2 demonstrates the overall drop in dwelling fires from around 3,000 to around 2,000 over the period 2000-2006. During the same period, the numbers of non-fatal dwelling fires halved in Merseyside as demonstrated in Figure 6.3.

Figure 6.2: Dwelling fires

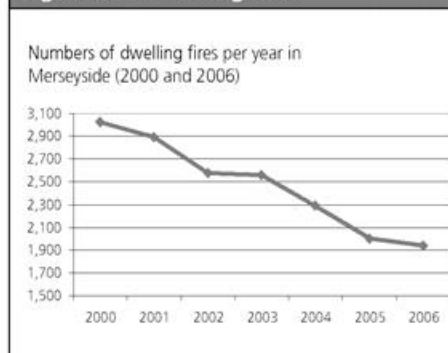
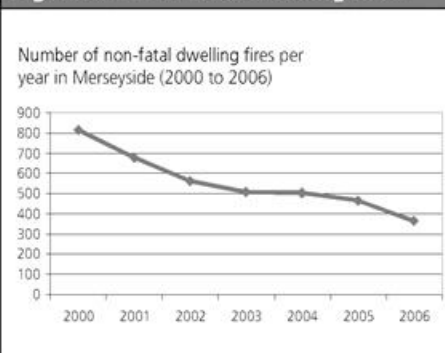


Figure 6.3: Non-fatal dwelling fires



6.3 How the activities were mainstreamed

6.3.1 General funding

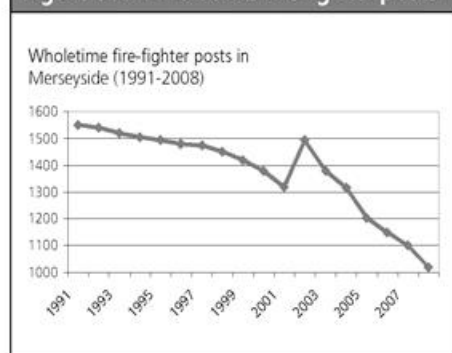
When the grant money had run out, Merseyside FRS realised there were two possible responses: *“We’ll have to stop the work, because the money has now run out,”* or *“What we’re doing is amazing: we’ll have to find another way to fund it,”* so they opted for the latter approach.

The grants enabled the FRS to try new things – if they worked, they found new ways of funding them; if they did not work, the activities were discontinued.

The amount of money received in total from the HFRC grant and the FPG was just over £1.5m. It was used to great effect in developing new and innovative programmes of activity. However, the total revenue budget of the Fire and Rescue Authority was over £70m per year and Merseyside FRS recognised that, although the amount of grant money received was a significant amount, it was still relatively small against their total budget.

The authority had a significant budget and their role was to make the difficult choices to ensure the excellent work continued. Trying to find additional money (through the Revenue Support Grant) or other forms of support was not always possible, although additional income streams were found particularly around youth activity. Merseyside FRS faced up to difficult decisions around staffing that meant reducing the overall number of firefighters whilst expanding the work they were doing.

Figure 6.4: Wholetime firefighter posts



They accepted that in order to achieve high levels of community safety (in addition to making use of core funding streams) the FRS needed to make use of those already being paid by the service, ie firefighters, and have the confidence that they could deliver a great service.

The vast majority of the very high number of HFSCs carried out in Merseyside have been conducted by firefighters while 'on call' and this work is now readily accepted as core activity. This proved to be a very effective way of improving the efficiency of the organisation.

As the work expanded, the community safety advocate scheme was developed, which provided additional skills to the organisation to help deal with the difficult issues discovered on visits scored as 'high risk'.



Merseyside HFSC

Merseyside FRS takes a targeted approach to HFSCs, seeking to reach the most vulnerable in the community. With the highest levels of social deprivation of anywhere in the country, it is a fact that there is a considerable proportion of the local population that could be regarded as high risk. Interestingly, they see no contradiction to carrying out large numbers of HFSCs and targeting the most vulnerable.

As the Deputy Chief Fire Officer said, *“When you have a proven way of reducing risk from fire in the homes and saving the lives of the most vulnerable, why place a restriction on reaching as many of these households as you possibly can?”*

6.3.2 Funding from partnerships

Developing partnerships was one way to try to save money or get additional work funded ‘in-kind’. Partnerships are considered vital to the success of Merseyside FRS and include Crime and Disorder Reduction Partnerships (CDRPs), health partnerships, Local Area Agreement (LAA) partnerships, Fire Support Network, the Roy Castle Foundation and Radio Merseyside Charitable Trust.

Use of FRS office space

One method was to allow businesses/partners to operate out of FRS office space and in some cases to negotiate a share of their business profits in return for office space.

A good example is at St Helens fire station. Spare capacity in the station is used by a number of different agencies. These include the Police neighbourhood action team, St Helens Alternative Motor Programme (STAMP – a programme for disaffected 13-16 year olds to deter car crime), St Helens Youth Inclusion Programme (YIP), youth offending services, Healthy Living Team Primary Care Trust (PCT)/local authority health initiative, social services family support team and National Association for the Care and Resettlement of Offenders (NACRO).

They also include Heartbeat (a charity using the station gym for rehabilitation of elderly people suffering heart problems) and ISS Ark (a private business continuity service following a fire).

Station facilities are rented out or offered for free depending on the broader partnership deal. For example, NACRO use office space in the St Helens fire station for free as they are a charity who also works closely in partnership with the FRS, while the police pay the FRS for use of office space. Similarly, the Heartbeat charity access the gym for free as they are bringing some of the target group for the Service’s HFSC, while the private business ISS Ark rent their space.

A significant added benefit of renting out/providing office space to a range of agencies, in addition to any financial benefits, is that the partners are able to work more easily and closely together and the partnerships are thereby strengthened, providing more opportunity to discuss in-kind work or financial support. For instance, a very good working relationship has developed with the police neighbourhood action team that encourages a very prompt response to any incidents of violent attacks on firefighters.

Financial support from partners

Reducing the risks of fire often creates a cost. For instance, in very high risk properties it may be judged that sprinklers are the only means of reducing that risk to acceptable levels,

but even the innovative 'standalone' sprinkler system pioneered by Merseyside costs £1,000. The FRS realised they would not be able to fund this alone, so they approached a number of potential funders including the Residential Social Landlords and the local authorities. Examples are listed below of the support provided to reach the most vulnerable in the community:

- In the last four years Liverpool, through the Neighbourhood Renewal Fund (NRF – now Working Neighbourhoods Funding), have provided £305,000 for the provision of fixed and standalone systems including some staffing costs.
- Knowsley Housing Trust (Registered Social Landlord) has recently given Merseyside FRS £10,000 for the provision of 10 stand alone systems.
- IKAN (Knowsley) has recently funded six standalone suppression systems.
- Helena housing (Registered Social Landlord) in partnership with Merseyside FRS received £50,000 for sprinkler provision in St. Helens.
- A bid has been submitted from the Area Based Grant in St Helens for £150,000 for fire suppression systems and deaf alarms.

6.3.3 Data sharing and referrals

Data sharing was considered vital in enabling Merseyside FRS to more effectively identify high risk individuals and concerning the provision of referrals.

Many partners working in the community became involved in referral to the FRS and were trained by the FRS in what the FRS can provide and what issues they would risk assess for. Having referrals passed onto the FRS saves a lot of FRS time in the identification of these high-risk individuals.

Merseyside FRS hold firm to the opinion that it is not true that data cannot be shared – their philosophy is that the data should be shared unless there is a good reason for not doing so.

The Data Protection Act is not intended to prevent sharing of data, but to ensure its security and safety. An example of working around security issues is of work with mental health data – name and address can be shared, but not other data; and information/referrals must be given by telephone or by fax, not via email or any other form of written correspondence.

Merseyside FRS found that once one agency had been persuaded to share data, it became a lot easier to convince others to follow the same path.

Examples of data sharing

Social services wrote to people they identified as vulnerable that had used their services, to inform them that they intended to share their information with the FRS for the purpose of the FRS offering a free HFSC. They gave the opportunity for residents to prohibit this data sharing rather than seek their permission to share the data. Out of 16,000 contacts, only

97 wrote to say that they did not want their information to be shared.

Merseyside FRS have agreed a system with the health service whereby they alert the FRS to any oxygen user that has been discharged from care into their own homes and this information is then stored in the emergency mobilising system to be available to crews responding to a fire.

6.3.4 Use of advocates

The image and uniform of a firefighter tends to be one that people respect and are less likely to be wary of than, for example, that of a policeman. Merseyside advocates have found that wearing a uniform has helped to raise awareness of the image and services available from the FRS.

Merseyside FRS has done a lot of work developing the community safety advocate scheme and there are numerous types of advocates working in Merseyside with all identified vulnerable, high risk and hard to reach groups.

The role of the advocates allows greater scope for the development of a range of partnerships which has helped to facilitate the mainstreaming process. Two examples of advocate roles are outlined below.

Refugees and asylum seekers

Refugees and asylum seekers often have a fear of authority and uniform due to experiences in their country of origin. Liverpool houses the only immigration office outside London where asylum seekers can apply for asylum, so there is a large immigrant population in Merseyside – there are also four houses that contain up to 1,000 new immigrants.

There tends to be a high rate of fire due to misuse of electrical appliances, home country traditional cooking methods, eg meals were known to be cooked in a big pan and then served from the floor – however with carpeted floors, this can be a fire hazard. Housing provided by private landlords can also be of a very poor quality with unsafe heating systems.

The FRS has a bilingual team providing translation services in languages such as Somali, Yemeni/Arabic, Chinese and South Asian languages. If the FRS requires translation services in other languages, they will make use of their partner organisations. As such, they find that networking is a key element of the work of an advocate.

Student advocate

The student advocate is a student on a sandwich course working her year in industry with the FRS. She attends all Freshers' Fairs and visits the halls of residence etc.

Her purpose is to raise awareness of fire hazards such as pans full of oil, covering up smoke alarms and unattended candles; and the impact of making hoax calls in terms of wasting

FRS time, taking resources away from genuine fires etc. This post is currently a pilot post for a year and the FRS will assess its success before renewing the funding for the post.

While Merseyside FRS had provided significant resources to community safety from 1999, it is fair to say the FPG and HFRC grant have been significant in providing an incentive for Merseyside FRS to pilot new initiatives and then allow time to properly evaluate their impact and outcome. This provides firm evidence to support (or not as the case may be) continuation of the schemes and including them in the authority's budget setting process, thus contributing to the mainstreaming process.

6.4 Leadership

The leadership within Merseyside FRS has provided the key driving force behind their work over recent years. The organisation is led by an ambitious Fire Authority and driven by individuals with a range of skills and abilities including someone with a creative and ideas-focused attitude; someone who is more process oriented and can turn those ideas into something practical that can work; and those who are practical and can actually put those plans into action. In order to make anything work, all these people have to work together as a team, each one bringing their own necessary skills to the process.

The Deputy Chief Fire Officer admits that it has not always been easy and being innovative is, by definition, a journey where you cannot always predict the outcomes. However, the FRS has now reached a point where staff are more likely to say "*Why not?*" when faced with a new challenge.

This page intentionally left blank.

UNIT 2: ASSESSMENT

TERMINAL OBJECTIVE

The students will be able to:

- 2.1 *Given a community risk-reduction tool, develop a problem statement and risk-reduction goal for a specific local risk.*

ENABLING OBJECTIVES

The students will be able to:

- 2.1 *Describe the community risk assessment process.*
 - 2.2 *Analyze local community risks.*
 - 2.3 *Assess vulnerability to risks.*
 - 2.4 *Summarize the importance of community involvement.*
 - 2.5 *Analyze acceptable level of risk.*
 - 2.6 *Establish risk-reduction priorities.*
-

This page intentionally left blank.



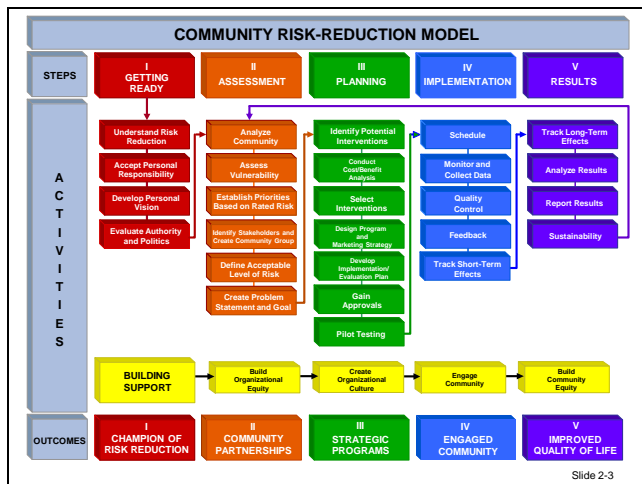
UNIT 2: ASSESSMENT

Slide 2-1

ENABLING OBJECTIVES

- Describe the community risk assessment process.
- Analyze local community risks.
- Assess vulnerability to risks.
- Summarize the importance of community involvement.
- Analyze acceptable level of risk.
- Establish risk-reduction priorities.

Slide 2-2



I. ANALYZING THE COMMUNITY

ANALYZING THE COMMUNITY
(cont'd)

- A multistep process that gathers and analyzes information about the community.

Slide 2-5

A. Definition of a community risk assessment.

1. A community risk assessment is a multistep process that gathers and analyzes information about the community.

ANALYZING THE COMMUNITY
(cont'd)

- Good risk assessment will help you:
 - Identify risks and causal factors.
 - Analyze who is contributing and impacted.
 - Analyze vulnerability.
 - Create a medium to establish priorities.

Slide 2-9

2. A good community risk assessment will accomplish the following objectives:
 - a. Identify risks and their causal factors — including the risk's frequency and severity.
 - b. Analyze the community — including who is contributing to the risk and who is impacted by it.

- c. Analyze community vulnerability — including the ability of the community (both people and infrastructure) to resist the impact of the risk.
- d. Create a medium to establish risk-reduction priorities — ultimately including the identification of the community's acceptable level of risk.

B. Degrees of risk assessment.

- 1. The community risk assessment process can be as complex and detailed as local resources permit.
- 2. Using basic skills and resources available to most organizations can be a more simplified process that will produce basic information that can be used effectively for a community risk-reduction program.
- 3. Several people or a small team may be most effective in completing the assessment.
- 4. Many communities have access to experts in assorted occupations that can be useful in the process.
- 5. Often these individuals and organizations are very willing to provide assistance to the local fire department.
- 6. Based on individual capabilities, each fire department and community will need to determine the extent to which they will conduct their risk assessment process.

**ANALYZING THE COMMUNITY
(cont'd)**

- Useful tools and resources (based on degree of assessment):
 - Spreadsheet software.
 - Geographic Information System (GIS) software.
 - Word processing software.
 - Human resources.



Slide 2-10

C. Useful tools and resources.

1. There are some useful tools and resources that should be considered before undertaking the risk assessment process:
 - a. Spreadsheet software: A computer application such as Microsoft Excel or similar spreadsheet-type program will enable detailed analysis from a variety of data sources.
 - b. A feature found in such programs is the ability to generate PivotTables from information stored in the spreadsheet. Among other functions, a PivotTable can automatically sort, summarize, count totals or give averages of data. PivotTables can make calculating and viewing data much quicker and simpler.
 - c. Spreadsheet applications are usually capable of creating a wide variety of charts and graphs that can be used in the analysis and written reports. For those with limited or no experience with spreadsheet applications, it would be well worth the time to take a training course to learn the basics, including the use of PivotTables.
2. Geographic Information System (GIS) software: An application such as ArcGIS (Environmental Systems Research Institute (ESRI)) is an extremely valuable tool for conducting a risk assessment.
 - a. More than just generating maps, it provides the power to manage data, perform advanced analysis, and much more. GIS applications can import incident data, demographic information, and other electronic records to produce a visual perspective of activity within your service area.
 - b. GIS software typically requires advanced training in order to use all of its features. Most fire departments do not have internal staff qualified to use such applications. However, many local government organizations have GIS departments or experts that can be recruited for assistance in generating maps.
 - c. For those who have access to ArcGIS-Online, ESRI provides an add-in tool that will generate maps using Microsoft Excel and, if desired, copy into PowerPoint for presentations.
3. Word processing software: An application such as Microsoft Word will be necessary to document the results of your assessment in a format that can be easily read and interpreted by others, as well as for continuing the planning process.

Most popular word processors can incorporate images, create tables, and import information from spreadsheet applications.

4. Human resources: Individuals both within and outside the fire department can be valuable resources.
 - a. While firefighters may be tapped for their fire and Emergency Medical Services (EMS) expertise, there may be individuals within the department with other unique skills, such as writing, graphic design, experience in statistical analysis, and other abilities.
 - b. Private individuals and government employees with knowledge and skills in data analysis, population studies (demographics), crime rates, and other talents should be sought out.

II. IDENTIFYING RISKS

IDENTIFYING RISKS

Use problem-related data.

- Identify what is happening.
- Explore current risks and trends.

Slide 2-11

A. Identify risks (problem-related data).

Identify the various risks to your community and/or service area.

1. This is accomplished by gathering data about what is occurring within your community.
2. The data will be used to identify both current risks and trends based on historical information.
3. Typically, there will be a large number of resources from which to acquire the data necessary to identify current and potential risks.

B. Acquire data that identifies risks.

1. Data elements to collect: There are a number of data elements that should be considered for acquisition. These might include:
 - a. Incident dates and times.
 - b. Incident types.
 - c. Incident locations (address and any other location data; preferably, latitude and longitude).
 - d. Causes of ignition of fires; heat sources; areas of origin.
 - e. Mortality rates (fire related; trauma; other medically related).
 - f. EMS mechanisms of injury and causes of illness; and EMS provider “impressions” (i.e., diagnosis).
 - g. Occupancy information.
 - h. Response times of all units involved (“fractile” method; not averages).
 - i. Rate of dollar loss to value.
2. You may want to obtain more or less data elements than the ones above. However, at the least, you will want to collect incident dates, times, types and locations in order to get a minimal perspective of what is occurring within your service area.

DATA SOURCES

- Departmental records management system (RMS).
- National Fire Incident Reporting System (NFIRS).
- Dispatch center data.
- National EMS Information System (NEMSIS).

Slide 2-12

3. Fire department incident data sources.
 - a. Many fire departments now document their emergency incidents electronically using computerized records management systems (RMS).
 - b. Most commercially available applications have been designed to collect incident data based on the National Fire Incident Reporting System (NFIRS). The U.S. Fire Administration (USFA) began NFIRS in 1975.
 - c. Under this program, local fire departments submit their data to a state organization that, in turn, reports this to USFA.
 - d. If your incident data is not easily accessible locally, you may be able to obtain the information from your state, or obtain an account with USFA, which will allow you to acquire specific reports.
 - e. Depending on the type of RMS you have, your system should be able to generate printed reports or export summary information in the form of a database or spreadsheet.
 - f. Obtain a minimum of three to five years of data (more, if in a very small, low-volume community), so as to ensure you have enough information to provide an adequate perspective of what is occurring.
 - g. Depending on the type of RMS your organization uses, and the extent of the information collected and entered into it, you will need to determine what data elements to extract (or what reports to generate).
4. Dispatch center data.
 - a. In most communities throughout the U.S., the local public safety answering point (PSAP) and/or dispatch center collects valuable data through complex and sophisticated computer aided dispatch systems.
 - b. Although the information collected varies among systems, the data typically includes incident locations; dates apparatus dispatch and arrival times; incident type; and much more.
 - c. Often, computer aided dispatch data is downloaded or integrated into the fire department's RMS. In that case, the necessary data may already be in your RMS. If not, most computer aided dispatch systems can export incident records to a spreadsheet or other format to enable data analysis.

5. Other data sources.
 - a. The National EMS Information System (NEMSIS) Project is an effort to create a national EMS database.
 - b. The current NEMSIS National Highway Traffic Safety Administration (NHTSA) Version 3 Dataset defines over 500 standardized data elements that can be collected. Most state EMS agencies are participating to some degree in collecting EMS incident data from local agencies.
 - c. If your agency submits electronic EMS data to your state EMS office, you may be able to obtain reports or electronic data from there. You may also request local EMS data (with some limitations) from NEMSIS at www.nemsis.org.
6. Law enforcement agencies (local, state and federal) have a long history of collecting and maintaining incident records and other information. These records may include arson reports and drug-related incidents, assaults, and other information that can ultimately impact the fire department.

DATA SOURCES (cont'd)

- Federal Emergency Management Agency (FEMA), Department of Homeland Security (DHS), National Weather Service (NWS), Centers for Disease Control and Prevention (CDC).

Slide 2-13

7. The Federal Emergency Management Agency (FEMA) (www.fema.gov) and the Department of Homeland Security (DHS) (www.dhs.gov) websites contain substantial information that can be useful in risk assessment particularly in natural and human-caused disasters.
8. The National Weather Service (NWS) (www.weather.gov) can also serve as a source of information on weather-related events.

- ### III. DEVELOP A COMMUNITY DEMOGRAPHIC PROFILE

Slide 2-16

- SM 2-11

COMMUNITY DEMOGRAPHIC PROFILE (cont'd)

- Build the following profile:
 - Age, gender, race and ethnicity.
 - Social and cultural information.
 - Income and education.
 - Housing demographics.

Slide 2-18

c. The demographic composition of a community typically includes the statistical data of its population. This should include:

- Age.
- Gender.
- Race and ethnicity.
- Social and cultural information.
- Income
- Education.
- Housing type, age and density (optional).

2. Demographic data sources.

- a. For most communities, this information is readily available from a variety of sources.
- b. This is where involving community partners can be of significant value, since they will often have more comprehensive information regarding the local population.
- c. In some cases, a community profile may have already been completed by another government agency or organization.

DATA SOURCES (cont'd)

- City, state and county governments.
- Chambers of commerce.
- School districts/Boards of education.
- Nonprofit organizations.
- Neighborhood associations.
- Public health organizations.
- GIS departments.

Slide 2-19

d. Local and regional demographic sources may include:

- City, state and county governments.
- Chambers of commerce.
- School districts/Boards of education.
- Nonprofit organizations.
- Neighborhood associations.
- Public health (state, local and federal).
- GIS departments.

DATA SOURCES (cont'd)

- U.S. Census Bureau data:
 - Use <http://www.usa.com/>.
 - Type in local community name.
 - Explore demographical data.
 - Drill down to census tract level.

Slide 2-20

3. U.S. Census Bureau and American FactFinder.
 - a. These websites contain very powerful tools and instruments for obtaining a wealth of information concerning the demographics of your community.
 - b. Although the process for gathering data from these websites may be intimidating initially, it can be easily mastered with experience.
 - c. You should consider spending some time exploring each of these sites to determine what is available for your community and how to use the various tools.
 - d. The Census Bureau website contains a vast quantity of data regarding population, businesses, geography and other information. Much of this is limited to broader areas such as states, counties and, in some cases, cities.
 - e. Within the Census Bureau's website are two other valuable sources of data: the American Housing Survey and the American Community Survey:
 - The American FactFinder website may provide the most detailed demographic information about your community or service area.
 - It provides data on population, age, business and industry, education, housing, income, poverty and much more.
 - f. The site provides substantial versatility when generating data. Tables can be modified, printed and downloaded and, in some cases, maps can be created.
4. Community partners.
 - a. Other state and local agencies and organizations can be quite useful in the development of your community profile.
 - b. Typically, they will have important information to share and may have a better insight into loss history, high-risk groups, local business issues, and specific demographics throughout the various neighborhoods.
5. Assessing community trends.
 - a. In order to do a thorough assessment, it will be important to not just evaluate your community's current conditions but to look at its past and projected future.

- b. There are many components to this process, and it can become quite complex. Although a comprehensive analysis to determine future projections may be beyond the capacity of many fire departments, the data may already be available.
 - c. The U.S. Census Bureau assesses population trends, and local planning departments often have completed projections on community growth and other anticipated trends.
- 6. Building the community profile.
 - a. Once you have gathered the necessary data, you can then begin to build and document your community profile and answer specific questions.
 - b. A bulleted summary table can be an easy way to describe the demographic characteristics of your service area.

Building the Community Profile

Category	Description	Questions to Answer
Demographical (people-related information)	Population, distribution, age, ethnicity and cultures	<ul style="list-style-type: none"> • Total community population? • Population of each census tract? • Which census tracts have the greatest concentration of high-risk populations: <ul style="list-style-type: none"> - Children under 5 years? - Older adults? - People in poverty? - People with disabilities? - People who speak little or no English?
Social Characteristics	Education levels and family profiles	<ul style="list-style-type: none"> • What are the demographics of education levels throughout your community? • What census tracts include the greatest populations of the following: <ul style="list-style-type: none"> - Single-parent homes? - Two-parent homes? - People living alone? - Older adults living alone?
Economic Characteristics	Employment profile and rates; income levels	<ul style="list-style-type: none"> • What is the employment profile? <ul style="list-style-type: none"> - Types of jobs? - Work in community or commute? - Major local employers? - Unemployment rate? - Income level ranges?
Housing Profile	Age of homes and occupants; types of residential occupancies; home ownership versus rental properties; transience among residents	<ul style="list-style-type: none"> • What is the overall housing profile of your community? <ul style="list-style-type: none"> - Average age of homes? - New (or recent) construction? - Homes with automatic detection and suppression equipment? - Types of residential construction? - Types of residential properties (single, family, duplex, multiunit)? - Renter versus owner occupied? - Transience (how often do people relocate)?
Growth Trends	Past and future population growth trends (consider using the U.S. Census Bureau website to obtain this information)	<ul style="list-style-type: none"> • How has the population changed in the previous 20 years? • What will the profile look like in 10 years?

7. Using GIS technology.
 - a. The use of GIS technology has continued to proliferate throughout the U.S. fire service. It has proven to be not only useful in risk assessment but also in other types of planning, preparedness, and incident response and recovery activities.
 - b. Once you have determined and acquired your data sources, you will need to identify available GIS expertise and potential training requirements.
 - c. This may include a GIS analyst/technician, other fire departments or government agencies using GIS, and training sources. It can also be useful to network with GIS user-groups in your area, as well as collaborate with other local fire departments.
 - d. While it would be useful to gain a basic understanding of GIS technology, it is not necessary to become an expert in this field to use GIS when conducting a risk assessment.
 - e. Many city and county governments have GIS experts who are often willing to assist the fire department in building a GIS project.
 - f. If your jurisdiction has access to GIS services, their potential value in risk assessment cannot be overstated, and you should cultivate positive relationships with the organization and staff.
 - g. GIS map projects are comprised of layers of data. Each of the layers can be created from various data sources and stored in a standard relational database. In this way, GIS is much more than a map; it is a location-aware information system that allows creating, managing and displaying relevant data.
 - h. Because information can be organized by a specific geographic location, it enables you to see the relationship between the various data layers.
8. Using GIS in the community profile.
 - a. The U.S. Census Bureau website also has the ability to generate a variety of demographic maps of your community, which can be printed or copied and used in your analysis.

- b. GIS technology is widely used by government agencies for a variety of applications. Local government agencies, such as planning or GIS departments, usually have substantial information about their communities.
- c. In some cases, they may already have a community profile documented in some form or another. The GIS department may be able to generate maps that can be used later in the community risk-reduction process.
- d. If your department has access to GIS, local census data can be accessed and used to generate custom maps. ArcGIS by ESRI is an application that can incorporate demographic, incident and other data into useful maps that can provide much greater insight into what risks are occurring, where they are occurring, and within what types of populations.

IDENTIFY TARGET HAZARDS

- Health care facilities.
- Critical transportation infrastructure.
- Emergency Operations Centers (EOCs).
- Public utilities and communications.
- Hazardous materials locations.

Slide 2-21

B. Identify target hazards.

1. One component of conducting a community risk assessment is to identify specific target hazards within your service area. These are sometimes referred to as “critical facilities.” Examples of critical facilities might include:
 - a. Hospitals.
 - b. Assisted living centers.
 - c. Community shelters.
 - d. Schools.

- e. Airports.
 - f. Important government offices.
 - g. Emergency Operations Centers (EOCs).
 - h. Hazardous materials sites.
 - i. Roadways.
 - j. Water/Sewage treatment facilities.
 - k. Communications systems.
 - l. High-risk neighborhoods/Residential occupancies.
- 2. Consider for inclusion among your list of target hazards, buildings with substantial value to the community (economic, historic, other) and other facilities that, if damaged or destroyed, would have a significant negative impact on the community.
- C. Target hazard data.
- 1. In most communities, the local assessor's office will have a database that includes a listing of all the tax parcels within a community. Tax parcel information includes the property boundaries, use description, building area, number of floors, assessed values, and more.
 - 2. Some fire departments maintain occupancy data in their RMS. Typically, this is required from information gathered from regular property inspections.
 - a. Such systems may provide much more comprehensive information for identifying target hazards and enable you to generate detailed reports that describe significant hazards.
 - b. In some jurisdictions, property inspections are performed by government organizations outside the fire department.
 - c. In these cases, this can be another valuable data source to help in identifying your target hazards.

IDENTIFY TARGET HAZARDS (cont'd)

- Fire crews can help identify.
- GIS-based analysis.



Slide 2-22

D. Using fire crews to identify target hazards.

1. One option that can assist in determining target hazards is to use fire crews to identify facilities within their station's emergency response service areas.
2. Firefighters assigned to a particular station often have good insight into critical structures and facilities within their area.
3. Sometimes referred to as a "windshield survey," companies can be assigned to drive around their district and identify various target hazards.
4. If possible, they can perform more comprehensive inspections and preincident surveys and document important details. This information can be combined with other target hazard data to develop the final analysis.

E. GIS-based target hazard analysis.

1. Target hazards should be contained in listings and/or maps (which distinguish target hazards from other structures) that depict the details and locations of the vulnerable areas and critical structures and facilities. Probably the most effective method of generating a target hazard analysis is the use of a GIS-based model. As mentioned previously, GIS is being widely used among local government entities.
2. A GIS-based assessment is comprised of four elements:
 - a. Identifying/Classifying community hazards.
 - b. Identifying risk factors, potential and probability.
 - c. Identifying/Classifying community assets/values.

- d. Fusing all of the elements into a visual display of the existing hazards: their potential impact on values, and the risk or likelihood of an unwanted event.
- 3. Data sources previously mentioned will be necessary to enable a complete GIS target hazard analysis. These data elements are available in most communities and will be critical in the process of building the target hazard analysis. Sources should include (but not be limited to):
 - a. Locations of utilities (electric, gas, etc.).
 - b. Previous fire and other incidents.
 - c. Water supplies and hydrants.
 - d. Street layers.
 - e. Assessed value.
 - f. Census tracts.
 - g. Tax parcels.
 - h. ZIP code boundaries.
 - i. Occupancy data.
 - j. Hazmat permits.
 - k. Block groups.

This page intentionally left blank.

ACTIVITY 2.1

Exploring Occurrence of Local Structure Fires

Purpose

Introduce students to a fire-risk mapping tool developed by the American Red Cross.

Directions

1. This is an instructor-led, large group activity that takes place in the computer lab in Building J.
2. Your instructor will go to the website <https://www.homefirepreparedness.org/cms/node/104>.
3. Your instructor will show the GIS mapping video demonstration. Pay close attention to the instructions on how to build a layered map of areas within your community.
4. Upon completion of the video, use your computers and build a map of a high fire-risk area within your community. Build the map sequentially as follows:
 - a. Type the name of your community in the search box, and click enter or hold the mouse cursor over your local region and keep double clicking until the skeletal outline of your community becomes visible. The map will be grayscale and not give any street names yet.
 - b. Select a base map for your community. Use the “streets” base map.
 - c. Open the “details” function, and perform the following actions one by one.
 - d. Add the USA Median Household Income overlay feature. (**Note:** This feature will not engage at the micro neighborhood-base level. It must be used when you are displaying an overall view of the community.)
 - e. Add the Home Fire Incidents 2008-2012 overlay.
 - f. Add the Red Cross Fire Response overlay.
 - g. Add the Home Fire Fatalities and Injuries 2008-2012 overlay.
 - h. Experiment with drilling down on “pockets” of high fire-risk areas for your community.
5. You are allowed 30 minutes to experiment with the fire mapping tool.

This page intentionally left blank.

IV. ASSESSING VULNERABILITY

ASSESSING VULNERABILITY



Vulnerability is the susceptibility to suffer harm or loss from an event.

Slide 2-28

- A. Vulnerability is the susceptibility to suffer harm or loss from an event.
1. Vulnerability may vary based on numerous factors such as preparedness, capability of emergency services, etc.
 2. Vulnerability also may vary across communities and among households.

FIVE AREAS OF VULNERABILITY

- Human.
- Economic.
- Social.
- Political.
- Environmental.

Slide 2-29

- B. There are five areas of vulnerability in a community.
1. **Human vulnerability** includes the cost in personal injury and death due to an event. This also could include displacement from the community and human suffering. It has implications at individual, household and community levels.

2. **Economic vulnerability** includes the cost to replace or repair damaged property, the availability and cost of insurance, lost tax revenue, lost wages, the cost of business interruption, and medical costs, both short and long term, as well as the cost to provide emergency services.
3. **Social vulnerability** is the potential for an event to have a negative effect on the social fabric of a community.
 - a. For example, frequent crimes against persons or property can cause people in certain areas of the community to feel unsafe.
 - b. An event that requires the evacuation of portions of a community creates the need for shelters and can cause major disruptions in the daily lives of people.
 - c. Additionally, an event like Columbine can result in the long-term need for additional mental health and social services.
4. **Political vulnerability** includes the impact a disaster can have on the community and the political disruption that can occur during the recovery process.
 - a. Elected and nonelected officials can find the existing laws inadequate for the event.
 - b. The Station Nightclub Fire resulted in sweeping changes in the fire and building codes in Rhode Island and a number of other states as well.
 - c. Unfortunately, someone usually has to die in order for change to occur. For example, a traffic control device is rarely installed at an intersection until enough serious vehicle crashes occur.
 - d. One of the most tragic examples of this was the fire at the Triangle Shirtwaist Factory in 1911 that killed 146 young girls and resulted in some of the most sweeping changes to government's regulation of business in our history.
5. **Environmental vulnerability** refers to the health and welfare of the natural environment. An event may cause temporary or permanent damage to the environment within a community.

A severe drought or a hailstorm can damage or destroy crops and/or livestock; floods and mudslides can permanently alter the terrain; a wildfire can destroy an entire forest.

C. Describe risk attributes and vulnerability.




1. Once vulnerability has been assessed, it is time to check with your superiors regarding moving ahead on a risk-reduction initiative.
2. At this point, it will be important to describe the various attributes associated with the risks that have been identified.
3. There are various tools and methods that can be used in this process.

V. ESTABLISHING PRIORITIES BASED ON RATED RISKS

- A. Once you have gathered and analyzed all of your data sources, it will be necessary to evaluate, quantify and determine the consequences; then prioritize the risks.

**INCIDENT CHARACTERISTICS
TO AID IN PRIORITIZING**

- Frequency.
- Severity.
- Duration.
- Capacity.



Slide 2-30

B. Incident characteristics to aid in prioritizing.

1. **Frequency** refers to how often an event occurs.
 - a. Some events, like a routine medical emergency, an automobile collision, or smoke alarm activations, may occur several times each day depending on the size of the community.
 - b. Other events, such as a structure fire, may commonly occur but with less frequency. Fortunately, an event like Hurricane Katrina may be a once in a lifetime occurrence.
 - c. Does the event occur daily, weekly, monthly, annually or rarely, or is it an extraordinary event such as Hurricane Katrina?
2. **Severity** refers to the impact of the event.

- a. Some events result in minor property damage, inconvenience, or a slight injury such as a bruise or an abrasion.
 - b. Others may be more severe, resulting in life-threatening injuries, death, or the total destruction of one or more buildings.
 - c. Are the consequences and loss insignificant, minor, significant, major destruction or total destruction?
 - 3. **Duration** refers to how long an event lasts.
 - a. Fortunately, most incidents average less than one hour from the time of dispatch and are managed easily by the community's on-duty emergency responders.
 - b. A few events, such as a winter storm, may last for a few days and may stretch a community's resources to its full capacity.
 - c. Occasionally, however, a catastrophic event like a severe hurricane may exceed the community's ability to manage the event with its own resources and may have a lasting impact on the community.
 - 4. **Capacity** refers to the ability of an emergency response system or a community to accommodate a sudden or prolonged surge in a demand for certain services.
 - a. For example, a large fire involving mutual-aid resources may exceed the capacity of a fire department's radio system.
 - b. An outbreak of the flu might quickly overtax the local hospital's capacity to care for the surge in patient load, or a large number of fatalities might exceed the capacity of the local medical examiner's office.
- C. There are several types of risk assessment matrices available. These tools range from numerical quadrant tools to models that feature the use of qualitative measures to assess the likelihood of the occurrence.
- 1. Table 1 is used as a qualitative measure of risk likelihood.
 - 2. Table 2 is used as a qualitative measure to describe the consequences or impact of a particular risk or event.
- Using the results from the previous two tools (Tables 1 and 2), a level of risk can be assigned using the matrix in Table 3.

3. By combining these tools and assigning a score to each of your risks, you can prioritize those that need the most attention for developing strategies and tactics for mitigation. This is a good point at which to include critical community partners and stakeholders for input.

Table 1: Qualitative Measures of Risk Likelihood

Level	Description	Characteristics
A	Almost Certain	Event is expected to occur. High level of recorded incidents and/or very strong anecdotal evidence. Strong likelihood event will reoccur. Strong opportunity, reason or means to occur.
B	Likely	Event will probably occur. Regular recorded incidents and strong anecdotal evidence. Considerable opportunity, reason or means to occur.
C	Possible	Event should occur at some time. Few infrequent, random recorded incidents or little anecdotal evidence. Very few incidents in associated organizations or comparable facilities. Some opportunity, reason or means to occur.
D	Unlikely	Event could occur at some time. No recorded incidents or any anecdotal evidence. No recent incidents in associated organizations or facilities. Little opportunity, reason or means to occur.
E	Rare	Event may occur only in exceptional circumstances.

Source: City of Manningham (Victoria, Australia) Community Emergency Risk Management Plan (2009)

Table 2: Qualitative Measures of Risk Consequence or Impact

Level	Description	Characteristics
1	Insignificant	<ul style="list-style-type: none"> • No injuries or fatalities. Small number or no people displaced, and only for short duration. Little or no personal support required (support not financial or material). • Inconsequential or no damage. Little or no disruption to community. • No measurable impact on environment. • Little or no financial loss.
2	Minor	<ul style="list-style-type: none"> • Small number of injuries, but no fatalities. Minor medical treatment required. Some displacement of people (less than 24 hours). Some personal support required. • Some damage. Some disruption (less than 24 hours). • Small impact on environment with no lasting effects. • Some financial loss.
3	Moderate	<ul style="list-style-type: none"> • Medical treatment required, but no fatalities. Some hospitalization. Localized displacement of people who return within 24 hours. Personal support satisfied through local arrangements. • Localized damage, which is rectified by routine arrangements. Normal community functioning with some inconvenience. • Some impact on the environment with no long-term effects, or small impact on environment with long-term effects. • Significant financial loss.
4	Major	<ul style="list-style-type: none"> • Extensive injuries, significant hospitalization, large number displaced (more than 24 hours duration). Fatalities. External resources required for personal support. • Significant damage that requires external resources. Community only partially functioning, some services unavailable. • Some impact on environment with long-term effects. • Significant financial loss — some financial assistance required.
5	Catastrophic	<ul style="list-style-type: none"> • Large number of severe injuries requiring hospitalization. Significant fatalities. General displacement for extended duration. Extensive personal support. • Extensive damage. Community unable to function without significant support. • Significant impact on environment and/or permanent damage. • Huge financial loss — unable to function without significant support.

Source: City of Manningham (Victoria, Australia) Community Emergency Risk Management Plan (2009)

Table 3: Qualitative Risk Analysis Matrix: Level of Risk

Likelihood	Consequence				
	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
A (Almost Certain)	HR	HR	ER	ER	ER
B (Likely)	MR	HR	HR	ER	ER
C (Possible)	LR	MR	HR	ER	ER
D (Unlikely)	LR	LR	MR	HR	ER
E (Rare)	LR	LR	MR	HR	HR
Categories of Risk					
Extreme Risk (ER)		Detailed research and management planning required at senior levels. Action must be taken to reduce consequences or likelihood.			
High Risk (HR)		Chief officer or senior management attention required, further research might be required. Some action must be taken.			
Moderate Risk (MR)		Management responsibility must be specified, specific monitoring or response procedures required.			
Low Risk (LR)		Manage by routine procedures.			

Source: City of Manningham (Victoria, Australia) Community Emergency Risk Management Plan (2009)

ACTIVITY 2.2

Analyzing a Dataset

Purpose

Analyze a dataset to determine a priority risk issue.

Directions

1. Locate the dataset on structure fires from Chesterfield Fire and EMS.
2. Work in your table group, analyze the dataset, and reach consensus on a priority fire risk that should be addressed.
3. Look deeper than simply frequency of occurrence. Also consider injuries, deaths and property loss.
4. You are allowed 15 minutes for small group work, and your group should be prepared to explain and justify its decision.
5. The instructor will spend 15 minutes debriefing the activity.

This page intentionally left blank.

ACTIVITY 2.2 (cont'd)

Analyzing a Dataset

Structure Fire Causes (Chesterfield Fire and EMS)
Report Period: 1/1/14 to 12/31/14

New Cause		Fires		Civilian Deaths		Civilian Injuries		Firefighter Deaths		Firefighter Injuries		Property Loss		Contents Loss		Total Loss	
Code	Description	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
01	Intentional	28	6.65%	0	0.00%	2	4.26%	0	0.00%	0	0.00%	202,450	4.81%	44,044	2.40%	246,494	4.08%
03	Smoking	18	4.28%	1	25.00%	9	19.15%	0	0.00%	3	23.08%	570,800	13.56%	251,850	13.71%	822,650	13.60%
04	Heating	62	14.73%	0	0.00%	2	4.26%	0	0.00%	1	7.69%	158,218	3.76%	68,360	3.72%	226,578	3.75%
05	Cooking	161	38.24%	1	25.00%	23	48.94%	0	0.00%	0	0.00%	621,405	14.76%	307,739	16.75%	929,144	15.36%
06	Electrical Malfunction	34	8.08%	0	0.00%	2	4.26%	0	0.00%	2	15.38%	382,050	9.08%	80,605	4.39%	462,655	7.65%
07	Appliances	25	5.94%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	246,300	5.85%	74,485	4.05%	320,785	5.30%
08	Open Flame	19	4.51%	0	0.00%	5	10.64%	0	0.00%	1	7.69%	315,710	7.50%	228,300	12.42%	544,010	9.00%
09	Other Heat	5	1.19%	0	0.00%	2	4.26%	0	0.00%	0	0.00%	90,000	2.14%	25,000	1.36%	115,000	1.90%
10	Other Equipment	1	0.24%	0	0.00%	0	0.00%	0	0.00%	2	15.38%	368,500	8.75%	200,000	10.88%	586,500	9.40%
11	Natural	8	1.90%	0	0.00%	0	0.00%	0	0.00%	1	7.69%	209,500	4.98%	169,000	9.20%	378,500	6.26%
12	Exposure	29	6.89%	0	0.00%	0	0.00%	0	0.00%	1	7.69%	210,600	6.22%	100,000	5.48%	310,600	5.99%
13	Unknown	12	2.85%	1	25.00%	1	2.13%	0	0.00%	1	7.69%	435,066	10.34%	146,001	7.95%	581,067	9.61%
14	Equipment Misoperation, Failure	3	0.71%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	55,000	1.31%	10,500	0.57%	65,500	1.08%
15	Other Unintentional, Careless	16	3.80%	1	25.00%	1	2.13%	0	0.00%	1	7.69%	292,850	6.96%	131,000	7.13%	423,850	7.01%
Grand Total		421	100.00%	4	100.00%	47	100.00%	0	0.00%	13	100.00%	4,158,449	100.00%	1,836,884	100.00%	6,013,333	100.00%

This page intentionally left blank.

ACTIVITY 2.3

Local Community Risks

Purpose

Identify pertinent risks for your local community.

Directions

1. Working individually, complete an assessment of three leading risks in your community.
2. Use the Risk Priority Worksheets — one per risk.
3. Use your judgment, the information gathered from the pre-course assignment, the risk assessment tools, and class discussion to complete the worksheets.

This page intentionally left blank.

ACTIVITY 2.3 (cont'd)

Risk Priority Worksheet 1

Risk 1

1. Briefly describe the risk.

2. Describe the groups specifically affected by the risk.

3. Describe the areas in the community affected by the risk or where the risk is present.

4. Select the frequency of the risk, i.e., how often the event occurs. Please justify your selection.

- ☐ Daily ☐ Weekly ☐ Monthly
☐ Annually ☐ Less than once a year

Justification: _____

5. Select the severity of each event, i.e., the impact of the event to life, property, environment, community vitality. Please justify your selection.

☐ Minor severity ☐ Moderate severity ☐ Major severity

Justification: _____

6. Select the duration of the event, i.e., how long the event lasts. Please justify your selection.

☐ Short duration: hours or days

☐ Medium duration: weeks or months

☐ Long duration: years

Justification: _____

7. Describe your department's capacity to respond to and mitigate emergencies involving this risk. Please include the department's areas of strength and areas of weakness.

8. Describe the vulnerabilities to the risk:

Human: _____

Economic: _____

Social: _____

Political: _____

Environmental: _____

This page intentionally left blank.

ACTIVITY 2.3 (cont'd)

Risk Priority Worksheet 2

Risk 2

1. Briefly describe the risk.

2. Describe the groups specifically affected by the risk.

3. Describe the areas in the community affected by the risk or where the risk is present.

4. Select the frequency of the risk, i.e., how often the event occurs. Please justify your selection.

- ☐ Daily ☐ Weekly ☐ Monthly
☐ Annually ☐ Less than once a year

Justification: _____

5. Select the severity of each event, i.e., the impact of the event to life, property, environment, community vitality. Please justify your selection.

☐ Minor severity ☐ Moderate severity ☐ Major severity

Justification: _____

6. Select the duration of the event, i.e., how long the event lasts. Please justify your selection.

☐ Short duration: hours or days
☐ Medium duration: weeks or months
☐ Long duration: years

Justification: _____

7. Describe your department's capacity to respond to and mitigate emergencies involving this risk. Please include the department's areas of strength and areas of weakness.

8. Describe the vulnerabilities to the risk:

Human: _____

Economic: _____

Social: _____

Political: _____

Environmental: _____

This page intentionally left blank.

ACTIVITY 2.3 (cont'd)

Risk Priority Worksheet 3

Risk 3

1. Briefly describe the risk.

2. Describe the groups specifically affected by the risk.

3. Describe the areas in the community affected by the risk or where the risk is present.

4. Select the frequency of the risk, i.e., how often the event occurs. Please justify your selection.

- ☐ Daily ☐ Weekly ☐ Monthly
☐ Annually ☐ Less than once a year

Justification: _____

5. Select the severity of each event, i.e., the impact of the event to life, property, environment, community vitality. Please justify your selection.

☐ Minor severity ☐ Moderate severity ☐ Major severity

Justification: _____

6. Select the duration of the event, i.e., how long the event lasts. Please justify your selection.

☐ Short duration: hours or days

☐ Medium duration: weeks or months

☐ Long duration: years

Justification: _____

7. Describe your department's capacity to respond to and mitigate emergencies involving this risk. Please include the department's areas of strength and areas of weakness.

8. Describe the vulnerabilities to the risk:

Human: _____

Economic: _____

Social: _____

Political: _____

Environmental: _____

This page intentionally left blank.

VI. IDENTIFY STAKEHOLDERS AND CREATE COMMUNITY GROUP

IDENTIFY STAKEHOLDERS AND CREATE COMMUNITY GROUP

Benefits of involving the community in the risk-reduction process.

- Problems become community problems.
- Partnerships established.
- Collaboration and task sharing.
- Enhanced productivity.

Slide 2-33

A. Benefits of involving the community.

1. The problems become community problems versus fire department problems.
2. Partnerships are established, so the community as a whole is involved.
3. Enables more minds, bodies and resources to tackle the problem.
4. Shares the task of targeting the problem, developing a plan, and implementing the solutions.
5. More productive in terms of creativity, credibility, visibility and overall effectiveness.
6. The most successful risk-reduction efforts are those that involve the community in the planning and solution process.
7. As in fire suppression, large fires require mutual aid; the same strategy should be applied to community risk-reduction programs.

B. Involving the community.

1. The community can be invited to assist after the community profile and problem identification are completed, or the community can be invited to assist in determining what problems should be addressed.
2. Involving the community early on avoids programs being developed and “dropped” into a community with little attempt to understand the political, cultural and economic environment.

C. **Nothing for us without us.**

1. Community support is essential to successful programs.
2. Meeting with community groups and individuals and explaining that the program cannot succeed without their participation and involvement at all phases is also essential.
3. A broad-based group of community agencies and members can be invited to help identify areas of concern.
4. They can assist in prioritizing community problems.
5. Involving the community gives it a stake in the solution.

D. Engaging stakeholders.

ENGAGING STAKEHOLDERS

- Stakeholders are:
 - Those with interest in the program.
 - Potential partners and collaborators.
 - Those affected by the program.

Slide 2-34

1. Stakeholders have been described as:
 - a. People with interest in the program.
 - b. All the necessary partners.
 - c. Collaborators.
 - d. Those affected by the program.
 - e. All who have shared interest.

ENGAGING STAKEHOLDERS (cont'd)

- Selecting stakeholders.
 - Be broad **and** inclusive.
 - Two types of stakeholders:
 - Those involved in implementing the program.
 - Those served or affected by the program.

Slide 2-35

2. Selecting stakeholders.

- a. The success of your program depends on engaging the right mix of people.
- b. Be broad **and** inclusive.
- c. Includes two types of members:
 - Those involved in implementing the program.
 - Community members.
 - Sponsors.
 - Partners.
 - Funding officials.
 - Administrators.
 - Managers.
 - Staff.
 - Those served or affected by the program.
 - Neighborhood organizations.
 - Advocacy groups.
 - Community residents.
 - Elected and appointed officials.

3. Ensure that those served or affected by the program represent a demographic cross-section of the community by age, gender, race/ethnicity, income, education, places of residence, marital status, sexual orientation, language, and employment.
4. Stakeholders must be part of the program so their unique perspectives are understood.
5. When stakeholders are not appropriately involved, the program may be ignored, criticized or resisted.
6. Feasibility: Even if you have decided that the problem really is important and worth solving, will you be able to solve it or at least improve the situation? The bottom line: Decide if the good you can do will be worth the effort it takes.
7. Are you the best organization to solve the problem? Is someone working on the problem already?
8. Negative impacts: If you do succeed in bringing about the solution you are working on, what are the possible consequences? If you succeed in having safety measures implemented at a local factory, how much will it cost? Where will the factory get the money? Will managers cut salaries or lay off some of their workers?

VII. DEFINE ACCEPTABLE LEVEL OF RISK

DEFINE ACCEPTABLE LEVEL OF RISK

- Balance between risk and resources.
- Involves policy decisions.
- Public need/Public funding.
- Community makes the determination.

Slide 2-36

- A. Shared responsibility: Risk reduction is supposed to be a shared responsibility between government and citizens.
 - 1. Federal and state governments provide data, influence mandates, and often contribute funding to mitigation, response and recovery activities.
 - 2. Mitigation and response to fire and preventable injury is usually the responsibility of the local authority having jurisdiction (AHJ).
 - 3. Mitigating risk and adequately protecting a community is a complex task.
 - 4. Today's litigious society can hold local government and the emergency services liable for ignored or inadequately addressed risk.
- B. Determining acceptable level of risk.
 - 1. Individual members of the community make this determination every day when they decide whether or not to purchase life insurance or a homeowner's policy to protect their home and contents.
 - 2. They also determine the risk that they are willing to accept and able to afford when they set the deductible limits for their automobile insurance policies.
 - 3. Elected policymakers make this decision during the annual budget process when they weigh their constituents' competing demands for service versus their willingness and/or ability to pay taxes.
- C. Public policy decisions.
 - 1. The balance between risk and resources involves policy decisions.
 - 2. This involves making tough decisions about public needs and public funding.
 - 3. The community determines the acceptable level of risk determined by decisions made by elected officials and high-level government officials.
 - 4. Public policy decisions also are made when voters decide a referendum question.
 - 5. It is dangerous to make public policy decisions alone and in isolation.
- D. Economic decisions.
 - 1. The economic reality is that most communities are either unable or unwilling to bear the cost of providing enough resources to fund every possible scenario.

2. To do so would mean that schools, libraries, police and other essential services could not be adequately funded.
 3. As frustrating as it might be to the fire and emergency services, funding is both an economic and a political decision.
 4. The community is willing to accept the gap or deficiency known as the acceptable level of risk.
- E. The role of the fire and emergency services.
1. When the chief and his or her staff formulate their annual budget request, they also make recommendations concerning the acceptable level of risk they believe should be tolerated within the community.
 2. It is much easier to arrive at this recommendation if a formal risk assessment has been conducted that includes vulnerabilities and incident characteristics to aid in prioritizing.
 3. Once again, the five areas of vulnerability are considered when conducting a risk assessment:
 - a. Human.
 - b. Economic.
 - c. Social.
 - d. Political.
 - e. Environmental.
 4. Incident characteristics to aid in prioritizing:
 - a. Frequency.
 - b. Severity.
 - c. Duration.
 - d. Capacity.
 5. Reviewing historical loss data as well as considering potential problems for the community is required also.
 6. The fire and emergency services must work with the community to determine the acceptable level of risk.

7. The fire and emergency services can guide local decision-makers as to which types of scenarios are more important to their community, given their own history and a review of the potential problems they face.

VIII. IDENTIFICATION OF LEADING RISK ISSUE AND DEVELOPING A PROBLEM STATEMENT

**IDENTIFY PRIORITY RISK AND
DEVELOP PROBLEM STATEMENT**

- Identify priority risk and target population(s).
 - Decide what will be addressed.
 - Refine a target population.
 - Identify problem in specific terms.
 - Bring problem down to manageable size.

Slide 2-38

- A. Identify priority risk and target population(s).
 1. This is the time to pinpoint as precisely as possible what efforts will be addressed to whom and where.
 2. During this phase, fire officials and other local decision-makers have the ability to direct their effort toward the population and problems they feel will provide the highest return on their investment.
 3. The problem is identified in specific terms and is brought down to a manageable size.
 4. It allows for the design of a prevention program tailored to the needs and preferences of the groups.
 5. It maximizes the use of resources by targeting our efforts where they will have the greatest impact.
 6. This information is critical in developing a problem statement and in identifying target audiences.
 7. Describing the risk issue is critical in developing a problem statement and in identifying target audiences.

**IDENTIFY PRIORITY RISK AND DEVELOP
PROBLEM STATEMENT (cont'd)**

- Problem statement.
 - Rationale for addressing problem.
 - Creates sense of urgency and ownership.
 - Provides focus.

Slide 2-39

B. Problem statement.

1. Provides the rationale for why the identified problem should be addressed. The best problem statement should include the basics:
 - a. Who.
 - b. What.
 - c. When.
 - d. Where.
 - e. Why.
2. Three benefits of a problem statement:
 - a. Creates a sense of ownership for the team.
 - b. Focuses the team on an accepted problem.
 - c. Describes the problem so best interventions can be applied.
3. The problem statement is clear, concise and well-written. It is usually no more than one or two sentences.
4. Guidelines for creating a problem statement:
 - a. Should not address more than one problem.
 - b. Should not assign a cause.

- c. Should not assign blame.
- d. Should not offer a solution or recommendations.
- 5. Outline for a problem statement.
 - a. Who does it affect: women, children, racial/ethnic minorities?
 - b. Magnitude of the issue: How big is the problem?
 - c. Level of the problem: Is it national, state, local?
 - d. Status: Is the problem improving/staying the same/getting worse?
 - e. Keep it simple: “Everything should be simple as it can be, but not simpler” — Albert Einstein.

EXAMPLES OF PROBLEM STATEMENTS

- The problem is that severe weather poses a significant risk to residents of Cedar Hill.
- The problem is that high school students in the town of Ontario are at risk of lifestyle injuries.
- The problem is that residents are experiencing flooding in low areas in the city of Smithsburg.

Slide 2-40

- 6. Examples of problem statements:
 - a. The problem is that severe weather poses a significant risk to residents of Cedar Hill.
 - b. The problem is that high school students in the town of Ontario are at risk of lifestyle injuries.
 - c. The problem is that residents are experiencing flooding in low areas in the city of Smithsburg.

EXAMPLES OF PROBLEM STATEMENTS (cont'd)

- The problem is that the Sterling fire/Emergency Medical Services (EMS) continues to have high-speed single vehicle crashes on I-76.
- The problem is that older adults residing in 10 census tracts in the Baltimore area are at unacceptably high risk of diabetes.

Slide 2-41

- d. The problem is that the Sterling fire/EMS continues to have high-speed single vehicle crashes on I-76.
- e. The problem is that older adults residing in 10 census tracts in the Baltimore area are at unacceptably high risk of diabetes.

ACTIVITY 2.4

Identification of Leading Community Risk Issue and Developing a Problem Statement

Purpose

Identify the leading risk issue in your community and develop a problem statement for that risk issue.

Directions

1. Working individually, refer to Activity 2.3: Local Community Risks.
2. Considering both vulnerability and incident characteristics from your Student Activity Worksheets (SAWs), select the risk you would like to focus on for the rest of this course.
3. Develop a problem statement. Refer to information from the pre-course assignment if needed.
4. Be prepared to present your statement to the class. You will have 25 minutes to complete the activity.

This page intentionally left blank.

IX. ESTABLISHING A RISK-REDUCTION GOAL**ESTABLISHING A RISK-REDUCTION GOAL****Goals.**

- Provide focus and direction.
- Broad, general statement of the long-term change the program intends to achieve.

Slide 2-43

A. Goals.

1. Provide focus and direction for work.
2. Establish what the program aims to do and accomplish.
3. Are expected results and outcomes rather than methods and activities.
4. Written as a broad, general statement of the long-term change the program intends to achieve.

EXAMPLES OF GOALS

- To reduce the risks severe weather poses to the residents of Cedar Hill.
- To reduce lifestyle injuries to high school students in the town of Ontario.
- To reduce flooding in the low areas of the city of Smithsburg.

Slide 2-44

B. Examples of goals.

1. To reduce the risks severe weather poses to the residents of Cedar Hill.
2. To reduce lifestyle injuries to high school students in the town of Ontario.

3. To reduce flooding in the low areas of the city of Smithsburg.

EXAMPLES OF GOALS (cont'd)

- To reduce single vehicle crashes on I-76 in the Sterling response area.
- To reduce diabetes in older adults residing in 10 census tracts in the Baltimore area.

Slide 2-45

4. To reduce single vehicle crashes on I-76 in the Sterling response area.
5. To reduce diabetes in older adults residing in 10 census tracts in the Baltimore area.

ACTIVITY 2.5

Developing Your Risk-Reduction Goal

Purpose



Review your vision statement and develop a goal for your community issue.

Directions

1. Review your problem statement developed in Activity 2.4: Identification of Leading Community Risk Issue and Developing a Problem Statement.
2. Based on the example given in the Student Manual (SM), develop a risk-reduction goal. You will be given 10 minutes for this activity.
3. Be prepared to share what you have written with the class.

This page intentionally left blank.

X. SUMMARY



SUMMARY

- Described the community risk assessment process.
- Discussed local community risks.
- Assessed vulnerability to risks.
- Defined acceptable level of risk for their community.
- Selected risk.

Slide 2-47

This page intentionally left blank.

REFERENCES

- “America at Risk, America Burning Recommissioned.” Federal Emergency Management Agency, U.S. Fire Administration, October 2000.
- Barylick, J. “Killer Show.” University Press of New England, 2012.
- Commission on Fire Accreditation International, Inc. “Fire and Emergency Services Self-Assessment Manual,” 8th ed., Chantilly, VA.
- “Community Fire Defenses: Challenges and Solutions.” National Emergency Training Center, National Fire Academy. NFA-SM-CFD, October 1984.
- Covey, S.R. “Seven Habits of Highly Effective People.” New York: Simon and Schuster, 1989.
- Department of Homeland Security. “Risk Lexicon,” 2010 Edition.
- Federal Emergency Management Agency. “Developing the Mitigation Plan: Identifying Mitigation Actions and Implementation Strategies.” (FEMA 386-3), April 2003.
- _____. Emergency Management Institute. Disaster Planning and Policies.
- _____. “Integrating Historic Property and Cultural Resource Considerations into Hazard Mitigation Planning.” (FEMA-386-6), May 2005.
- _____. “Multi-Jurisdictional Mitigation Planning.” (FEMA 386-8), August 2006.
- _____. “National Response Plan.” Washington, DC: (2-4).
- “Fire Risk Analysis: A Systems Approach.” National Emergency Training Center, National Fire Academy. NFA-SM-FRAS, July 1984.
- Heifetz, R.A. and Linsky, M. “Leadership on the Line: Staying Alive through the Dangers of Leading.” Boston: Harvard Business School Press, 2002.
- Ingram, D. and Headey, P. “Best Practices for the Risk Mapping Process.” Milliman, Inc., 2004.
- International Association of Fire Chiefs. “NFPA 1710: A Decision Guide.” Chantilly, VA, 2001.
- International Association of Fire Fighters. “Safe Fire Fighter Staffing: Critical Considerations.” Washington, DC, 1993.
- ISO Properties, Inc. “Guide for the Determination of Needed Fire Flow.” Jersey City, 2006.
- Laska, S. and Morrow, B. (2007). “Social Vulnerabilities and Hurricane Katrina: An Unnatural Disaster in New Orleans.” Marine Technology Society Journal, 40 (4) 16-26.

Lofquist, W.A. "Discovering the Meaning of Prevention: A Practical Approach to Positive Change." Tucson: AYD Publications, 1983.

National Fire Protection Association. NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting*. Quincy, MA, 2012.

_____. NFPA 1410, *Standard on Training for Initial Emergency Scene Operations*. Quincy, MA, 2010.

_____. NFPA 1600, *Standard on Disaster/Emergency Management and Business Continuity Programs*. Quincy, MA, 2013.

_____. NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*. Quincy, MA, 2010.

_____. NFPA 1720, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments*. Quincy, MA, 2014.

UNIT 3: PLANNING, IMPLEMENTATION AND RESULTS

TERMINAL OBJECTIVE

The students will be able to:

- 3.1 *Develop an action/evaluation plan to address a specific risk in their local community.*

ENABLING OBJECTIVES

The students will be able to:

- 3.1 *Demonstrate how to apply a scientific approach to strategic community risk reduction.*
- 3.2 *Select integrated risk-reduction strategies.*
- 3.3 *Analyze cost/benefit of specific risk-reduction strategies.*
- 3.4 *Design a marketing strategy for a specific risk-reduction program.*
- 3.5 *Discuss the approval process for a risk-reduction program.*
- 3.6 *Discuss how to communicate the results of program evaluation to partners and stakeholders.*
-

This page intentionally left blank.



UNIT 3: PLANNING, IMPLEMENTATION AND RESULTS

Slide 3-1

ENABLING OBJECTIVES

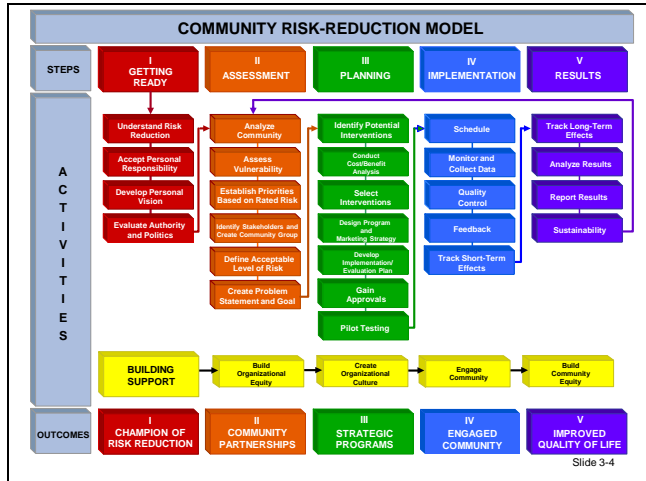
- Demonstrate how to apply a scientific approach to strategic community risk reduction.
- Select integrated risk-reduction strategies.
- Analyze cost/benefit of specific risk-reduction strategies.
- Design a marketing strategy for a specific risk-reduction program.

Slide 3-2

ENABLING OBJECTIVES (cont'd)

- Discuss the approval process for a risk-reduction program.
- Discuss how to communicate the results of program evaluation to partners and stakeholders.

Slide 3-3



I. A SCIENTIFIC APPROACH TO STRATEGIC COMMUNITY RISK REDUCTION

SCIENTIFIC APPROACH TO COMMUNITY RISK REDUCTION

- Damage is due to a transfer of energy or an absence of essentials like heat or oxygen.
- Many man-made events are predictable, preventable and understandable.

Slide 3-5

- We have the ability to apply science to community risk reduction whether we are dealing with natural or man-made causes.
- Requires considering the social, cultural, economic, political and environmental factors that may contribute to risk.
- Damage is due to the transfer of energy (kinetic, thermal and chemical energy; electrical; and radiation) or the absence of essentials, such as heat or oxygen.
- Many man-made events are predictable, preventable and understandable.

SCIENTIFIC APPROACH TO COMMUNITY RISK REDUCTION (cont'd)

- Pre-event.
- Event.
- Post-event.



Slide 3-6

E. We can understand how they occur because a chain of events happens during pre-event, event and post-event phases.

1. Pre-event phase is the time before the event occurs.
2. Event phase is the exact time when the energy transfer occurs.
3. Post-event is the time following the event.

INJURY VERSUS DISEASE

Pulmonary Effect	Agent	Exposure	Concentration
Disease	Toxic gas	Long term	Low level
Injury	Toxic gas	Brief	High level

Slide 3-7

F. Injury versus disease.

1. No basic scientific distinction between injury and disease.
2. In some cases, the agents are identical.
3. Brief exposures to high concentrations of toxic gas, whether by human or natural causes, is called "injury."

Pulmonary Effect	Agent	Exposure	Concentration
Disease	Toxic gas	Long term	Low level
Injury	Toxic gas	Brief	High level

4. The eventual pulmonary effect of chronic exposure to low concentrations of the same agent is called “disease.”

**SCIENTIFIC APPROACH TO
COMMUNITY RISK REDUCTION (cont'd)**

- Community risk can be characterized by:
 - Epidemics in certain populations.
 - Seasonal variations.
 - Long-term trends.
 - Demographic distribution.

Slide 3-8

- G. Community risk, like classic infectious disease, can also be characterized by:

- Epidemics in certain populations.
- Seasonal variations.
- Long-term trends.
- Demographic distribution.

	Disease Flu Outbreak	Human-Caused Heating Fires	Natural Tornado
Epidemic in certain populations	By region	By region	Can occur anywhere in U.S.; Great Plains and Gulf Coast states have greatest experience.
Seasonal variation	December to March	December to March	April to June
Long-term trends	Yes	Yes	Yes
Demographic distribution	Older adults; people who already have weakened immune systems.	Economically disadvantaged; the very young; older adults.	Homes without basements; manufactured homes.

SCIENTIFIC APPROACH TO COMMUNITY RISK REDUCTION (cont'd)

- Host — victim involved in event.
- Agent — form of energy.
- Vehicle — mechanism transferring energy.
- Environment — physical, social, cultural, economic and political.

Slide 3-9

H. Like diseases, these incidents can be studied by looking at the occurrence and distribution of diseases and injuries. This is known as epidemiology.

1. Host: the victim involved in the injury/illness event and factors that contribute to the outcome.
2. Agent: the form of energy that damages humans or property.
 - a. Kinetic.
 - b. Chemical.
 - c. Thermal.
 - d. Electrical.
 - e. Radiation.

- f. Absence of heat or oxygen.
3. Vehicle: the mechanism that transfers the energy causing damage.

A **vehicle** is an **inanimate** object such as an automobile or a hurricane, and a **vector** is a **living** object such as a mosquito or a dog that transfers the energy through a bite.

4. Environment: includes physical, social, cultural, economic and political.

COMMUNITY RISK REDUCTION AS A PROCESS			
Epidemiological Model			
Human Damage	Agent	Vector/Vehicle	Exposure Event
Malaria	P. vivax	Mosquito	Mosquito bite
Fractured skull	Kinetic energy	Motor vehicle	Crash
Property loss	Thermal energy	Kerosene heater	House fire

Slide 3-10

Epidemiological Model

Human Damage	Agent	Vector/Vehicle	Exposure Event
Malaria	P. vivax	Mosquito	Mosquito bite
Fractured skull	Kinetic energy	Motor vehicle	Crash
Property loss	Thermal energy	Kerosene heater	House fire

- I. Epidemiological versus fire model.

SCIENTIFIC APPROACH TO COMMUNITY RISK REDUCTION (cont'd)

- Just as you need heat, fuel and oxygen to have a fire, you need to have a host, agent and environment to sustain injury to a person.

Slide 3-11

1. Just as you need heat, fuel and oxygen to have a fire, you need to have a host, agent and environment to sustain injury to a person.
2. In community risk reduction, the prevention and mitigation of events causing death, injury and destruction deserve to be studied holistically by looking at how the parts are interdependent.

CAUSAL CHAIN ANALYSIS

Examines the chain of events that led to a preventable occurrence.



Slide 3-12

J. Causal chain analysis.

1. Causal chain analysis permits the strategic analysis of occurrences.
 - a. Used to identify the root causes of the event.
 - b. Many man-made events are predictable, preventable and understandable.
 - c. Unintentional man-made damage to people and property can usually be predicted, often prevented.

- d. If the event cannot be prevented, its effects can usually be mitigated.
- e. We can understand how incidents occur because a chain of events happens involving pre-event, event and post-event phases.
- f. Pre-event phase is the time before the event occurs.
- g. Event phase is the exact time when the energy transfer occurs.
- h. Post-event is the time following the event.
- i. There is no such thing as an “accident.” Instead, a chain of events leads to damage and injury, which makes the incident a predictable event.

**CAUSAL CHAIN ANALYSIS:
MAN-MADE EVENT**

- Typical candle fire.
 - Consumer buys a candle that is not tip over-resistant.
 - Fails to read safety instructions.
 - Candle placed too close to combustibles.
 - Candle left unattended.
 - Candle falls onto combustible materials.
 - Ignition occurs — fire destroys home.

Slide 3-13

- 2. Causal chain analysis of a typical candle fire.
 - a. Step 1: Consumer purchases a candle that is not tip over-resistant.
 - b. Step 2: Consumer fails to read safety instructions.
 - c. Step 3: Consumer places candle too close to combustibles.
 - d. Step 4: Candle is left unattended.
 - e. Step 5: Candle falls onto combustible materials.
 - f. Step 6: Ignition occurs and fire results.
- 3. Think of it as a chain of events that sets the stage for the incident to occur.
- 4. By removing any given link in the chain, the outcome will be altered.

**STRATEGIC COMMUNITY RISK
REDUCTION APPLIES BASIC SCIENCE**

Effects of most naturally occurring events can be mitigated.



Slide 3-14

5. Causal chain analysis can be used to identify how incidents occur, who is responsible for occurrences, and where preventive interventions can be applied to prevent or mitigate risk.

**CAUSAL CHAIN ANALYSIS:
NATURALLY OCCURRING EVENTS**

- While naturally occurring risks often cannot be prevented, their effects can be mitigated.
- Citizen preparedness for severe weather, earthquake-resistive buildings, shelters, and river levees are examples.

Slide 3-15

6. While naturally occurring risks often cannot be prevented, their effects can be mitigated.
7. Citizen preparedness for severe weather, earthquake-resistive buildings, shelters, and river levees are examples.

This page intentionally left blank.

ACTIVITY 3.1

The Epidemiological Triangle and Causal Chain Analysis

Purpose

Study events epidemiologically by looking at the host, the agent/vehicle, and the environment and conducting a causal chain analysis.

Directions

1. Read the case study, and answer the following questions:

a. Who was the host, and what factors were associated with the host?

b. What was the agent and the vehicle, and what factors were associated with them?

c. What were the environmental factors?

d. Explain how this incident could have been prevented by analyzing the host, agent/vehicle and environment.

2. Develop a causal chain analysis. Identify pre-event, event and post-event phases in the causal chain analysis.

3. What link or links in the causal chain analysis would have altered the outcome?

4. Develop a causal chain analysis for your selected risk issue based on your knowledge about the risk.

ACTIVITY 3.1 (cont'd)

Case Study

The weather forecast on this August day predicted a high of 102 F, and Ronnie Smith was spending the day at the home of Eddie Jones, whose family had a backyard pool. Both boys were 7 years old.

At about 9:30 a.m., Mrs. Jones received a phone call from her mother. The two boys, who had been playing video games in the living room, sauntered out to the patio. They immediately spotted a large inflatable alligator raft that lay at the side of the deep end of the pool. Ronnie jumped onto the raft and pronounced himself “king of the crocodile killers.” Eddie insisted that he was the “head king” and plopped himself down on top of Ronnie. In the resulting tussle, Ronnie rolled off the raft and into the pool. Although Ronnie had taken a few swimming lessons at the local YMCA, Ronnie was unable to keep himself afloat or reach the side of the pool. Eddie watched his friend struggle for a minute, and then Eddie was able to get to the side of the pool and get out. Eddie was afraid, so he ran into the garden shed at the side of the house, where he hid and cried. All this took about seven minutes.

At about 9:40 a.m., Mrs. Jones got off her cellphone and laid it on the kitchen counter. Returning to the living room, she saw the open sliding doors. She stepped out onto the patio. She saw Ronnie at the shallow end of the pool, where she lifted him out. She checked to see if Ronnie was breathing. He wasn't. She started for the phone, and then an awful thought hit her: Where was Eddie?

It took Mrs. Jones another minute to find Eddie in the garden shed, and another 30 seconds or so to get to the phone and call 911. It took the fire and emergency services about four minutes to get to the Jones' house. While waiting, Mrs. Jones was given instructions by the dispatcher to start CPR on Ronnie. When the ambulance arrived, the paramedics continued CPR. Ronnie started breathing again within a few minutes but did not regain consciousness. The paramedics rushed him to the hospital.


Eight months later, Ronnie still had not regained consciousness. It is hard to predict what the total costs will be. With good medical care, Ronnie could live for many years.

This page intentionally left blank.

II. LEVELS OF PREVENTION

LEVELS OF PREVENTION

- Primary.
- Secondary.
- Tertiary.



Slide 3-17

A. What researchers mean by primary, secondary and tertiary prevention.

1. Scientists are always looking for new and better ways to prevent disease and injury — both to avert human suffering and to control the tremendous economic costs of ill health. But when researchers and health experts talk about “prevention,” what do they mean?
2. Going upstream: Imagine you’re standing beside a river and see someone drowning as he floats by. You jump in and pull him ashore. A moment later, another person floats past you going downstream, then another and another. Soon you’re so exhausted, you know you won’t be able to save even one more victim. So you decide to travel upstream to see what the problem is. You find that people are falling into the river because they are stepping through a hole in a bridge. Once this is fixed, people stop falling into the water. When it comes to health, prevention means “going upstream” and fixing a problem instead of saving victims one by one.
3. In general, prevention includes a wide range of activities — known as “interventions” — aimed at reducing risks or threats to health. These are usually grouped into three categories.

B. Primary prevention: Here the goal is to protect healthy people from developing a disease or experiencing an injury in the first place. For example:

1. Education about good nutrition; the importance of regular exercise; and the dangers of tobacco, alcohol and other drugs.
2. Education and legislation about proper seat belt and helmet use.
3. Regular exams and screening tests to monitor risk factors for illness.

4. Immunization against infectious disease.
 5. Controlling potential hazards at home and in the workplace.
- C. Secondary prevention: These interventions happen after an illness or serious risk factors have already been diagnosed. The goal is to halt or slow the progress of disease (if possible) in its earliest stages; in the case of injury, goals include limiting long-term disability and preventing reinjury. Mitigating or minimizing the event is part of secondary prevention. For example:
1. Telling people to take daily, low dose aspirin to prevent a first or second heart attack or stroke.
 2. Recommending regular exams and screening tests in people with known risk factors for illness.
 3. Providing suitable modified work for injured workers.
 4. Firefighting tries to minimize the destruction force of fire.
- D. Tertiary prevention: This focuses on helping people manage complicated, long-term health problems such as diabetes, heart disease, cancer and chronic musculoskeletal pain. The goals include preventing further physical deterioration and maximizing quality of life. For example:
1. Cardiac or stroke rehabilitation programs.
 2. Chronic pain management programs.
 3. Patient support programs.

III. HADDON MATRIX

HADDON MATRIX
Epidemiological approach.
• Explore distribution and patterns.
• Look at occurrence and determinants.
• Analyze risk to prevent or mitigate.
• Identify major modifiable factors.
• Find intervention points.
Slide 3-18

		Factors				
P H A S E S		Prevention Effort	Host/Human (Individual)	Agent/ Vehicle (Equipment)	Environment	
					Physical	Social/ Economic
	Pre-event	Primary: reducing the number of events with potential to cause injury.				
	Event	Secondary: providing an appropriate environment in which exposure to destructive event can be managed or minimized.				
	Post-event	Tertiary: providing conditions to reduce the severity, commence treatment, and optimize outcome.				

Figure 3-1
The Haddon Matrix

- A. Developed by Dr. Haddon, a physician, epidemiologist, engineer, and the first administrator of National Highway Traffic Safety Administration (NHTSA), who is considered the father of modern injury prevention.
1. Dr. Haddon suggested an epidemiological approach to assessing injury risk.
 - a. This means that there are factors affecting health, including distribution and patterns, occurrence, and determinants.
 - b. These can be analyzed so risks can be prevented and in some cases mitigated.
 - c. Once we know what to expect, we can think about how to intervene.

2. The goal of the Haddon Matrix is to identify major modifiable factors that lead to unhealthy outcomes. It can help to examine the wide range of potential intervention points before trying to decide which are most feasible for political, economic, cultural and other practical reasons.
 3. Dr. Haddon thought injuries occur with a certain time sequence.
 4. The concept of phases was related to his definition of injury as the uncontrolled release of energy in one of its forms (i.e., kinetic, chemical, thermal, electrical and radiation) or the absence of essentials such as heat or oxygen.
 5. Dr. Haddon said that there are factors involved in injury occurrence.
 - a. The human is the person experiencing the injury or illness.
 - b. The agent causing damage is energy (electrical, thermal, kinetic, etc.).
 - c. The vehicle is the mechanism that transfers the energy. A vehicle can be an inanimate object, such as an automobile or a tornado, or a vector, a person or animal that transmits the energy (e.g., a bite).
 6. There are also different **environmental factors**, such as the physical and social environments, in which an injury or damage might take place.
 - a. The physical environment includes all the characteristics of the setting in which the event takes place (e.g., streets, buildings, playgrounds).
 - b. The social environment includes cultural, economic, political and legal norms and practices in the culture and society at the time (e.g., norms about alcohol consumption, policies about licensing drivers, use of seat belts).
- B. Dr. Haddon described phases in which injury and damage occur. This is known as causal chain analysis.
1. It is the chain of events that sets the stage for the event to occur and the outcome.
 2. By removing or eliminating any given link in the chain, the event and the outcome can be eliminated or reduced.

EVENT PHASES

- Pre-event phase:
 - Remove link before start = prevention.
 - Primary prevention.
 - Stop event by acting on its causes.

Slide 3-19

C. Event phases.

1. The time before the event occurs is called the **pre-event phase**. This is the period during which the interplay of factors determines whether an event will take place.
 - a. If the link is removed prior to the start of the event, it will not occur.
 - b. Interventions applied to this phase are known as primary prevention (e.g., staying in the kitchen while frying, fencing around pools, conducting a home safety survey).
 - c. This is about preventing the event from occurring by acting on its causes.
 - d. Addresses if an event with the potential to cause injury and/or damage will occur.

EVENT PHASES (cont'd)

- Event phase:
 - Precise time when transfer of energy occurs.
 - Secondary prevention needed.
 - Influence degree of damage that will occur.

Slide 3-20

2. The precise time when the transfer of energy occurs is the **event phase**.
 - a. If the link is removed after the event begins, it is secondary prevention.
 - b. This period at the moment of crisis includes all factors that influence the degree of injury that results from the incident.
 - c. Relies on designing and implementing protection that needs to have been in place prior to the event occurring to provide the appropriate environment in which exposure can be managed or minimized.
 - d. Addresses whether an injury and/or damage will occur.
 - Examples include bike helmets, properly used occupant restraints, personal alert safety system (PASS) devices, shower grab bars, safe rooms, and smoke alarms and fire sprinklers.
 - e. Firefighting is conducted during the event stage. The event stage includes secondary prevention, which addresses managing and minimizing the destructive energy.

EVENT PHASES (cont'd)

- Post-event phase:
 - Provide conditions in which further damage can be avoided and treatment can be started.

Slide 3-21

3. The time following the event and the factors about the state of the host, agent, vehicle or environment that affects what the energy does is the **post-event phase**.
 - a. If the link is removed and the severity of injury and/or damage is reduced, it is tertiary prevention.

- b. Attempt to reduce the seriousness of an injury or disability immediately after the event (e.g., CPR, first aid and prompt response of Emergency Medical Services (EMS)).
 - c. Includes everything that determines whether the severity can be reduced.
 - d. Much of what we do in emergency response is tied to tertiary prevention. In many of the calls that we respond to, the injury and damage has occurred already.
 - e. Addresses what the outcome will be.
 - f. These tertiary prevention measures provide conditions in which further damage can be avoided and treatment can be started.
 - g. To be effective, they also must have been in place or easily accessed prior to the event.
 - Examples include support and services such as first aid; the proximity of rescue equipment; and access to acute care, trauma services, rehabilitation, and community reintegration services.
 - Can also include recovery, as in Hurricane Katrina, involving personal, organizational and community recovery.
 - A common misunderstanding is to look at the post-event phase in terms of post-injury and focus on medical services and rehabilitation.
 - h. All of the Haddon analysis is intended to focus on prevention and intervention that affect the post-event phase and would mostly need to be accomplished prior to an injury event occurring.
 - Examples include involving adults in exercise programs or calcium regimen programs.
 - These can have beneficial effects at the post-fall time.
4. When you put these two axes together, you get the Haddon Matrix.

VALUE OF HADDON MATRIX

- Each cell represents potential intervention.
- Looks at agent, host and environment.
- Multistrategy approach to community risk reduction.

Slide 3-22

D. The value of the Haddon Matrix.

1. It points out different areas in which interventions can be mounted.
2. It was thought the host/pre-event cell deserved the most attention.
3. It would be wrong to focus our attention on only one cell.
4. Each one of the cells represents an opportunity to think about prevention possibilities.
5. An opportunity to apply vulnerability assessment techniques.
6. Largely directed not at the host but at the agent/vehicle and environment.
 - a. This changed how we think about safety.
 - b. At one time, it was thought that education/behavior modification was the only way to address community risk reduction.
7. This introduced a major shift in thinking to include a multistrategy approach that had to be planned in advance.
 - a. Intervention applied to the pre-event phases is designed to prevent the injury and/or property loss.
 - b. Interventions applied to the event stage can prevent an injury or reduce the amount of damage when the event is occurring.
 - c. Interventions applied to the post-event phases are designed to avoid further damage and start treatment after the event.

8. Can be applied to disease, man-made incidents and natural disasters.
9. As a planning tool, this kind of framework allows cataloging what can be changed or enhanced, what will have bearing on the outcome, and what is possible with existing resources.
10. It is just a tool. It is more important to generate a comprehensive list of risk factors than to worry about where they fit on the matrix.

A Motor Vehicle Crash	Factors				
	Prevention Effort	Host/Human (Individual)	Agent/Vehicle (Equipment)	Environment	
				Physical	Social/Economic
Pre-Event Phases	Primary: factors to avoid or prevent exposure to destructive energy.	Poor vision, poor reaction time, alcohol, speeding, risk-taking, experience, fatigue, age, size	Size, braking and maneuvering ability, center of gravity, ease of control, brakes, lights, warning systems	Visibility, congestion, road design, surface, shoulders, signals	Cultural norms permitting speeding, red light running, driving under the influence (DUI), driver training and licensure, attitudes about alcohol, laws related to impaired driving
Event Phases	Secondary: providing an appropriate environment in which exposure to destructive energy can be managed or minimized.	Failure to wear seat belt	Vehicle size, automatic restraints, speed capability, force, direction, and number of impacts	Impact surfaces, guardrails, roadside embankments, fixed objects, other vehicles	Road and environmental design policies, maintenance
Post-Event Phases	Tertiary: providing conditions in which further injury can be avoided and treatment commenced.	Age, physical condition, pre-existing conditions, EMS care and rehabilitation	Fuel system integrity, OnStar®	Emergency communication systems, distance to and quality of EMS, rehabilitation programs	Support for trauma care; training of EMS personnel; provision of care; financial, legal and social resources

Note: The Haddon Matrix is just a tool. It is more important to generate a comprehensive list of risk factors than to worry about where they fit on the matrix.

Figure 3-2
The Haddon Matrix Applied to a Motor Vehicle Crash

This page intentionally left blank.

ACTIVITY 3.2

Applying the Haddon Matrix: Windows of Opportunity

Purpose

Recognize that a wide range of interventions may exist for a particular injury problem. It is possible to intervene at a number of points.

Directions

1. Refer to the completed Haddon Matrix on a motor vehicle injury. The model is meant to serve as a guide. The instructor will assign each table one of the following risks:
 - a. Table 1: cooking fires in kitchens.
 - b. Table 2: children age 5 and under drowning in swimming pools.
 - c. Table 3: flash flooding.
 - d. Table 4: falls to people 65 and older in their homes.
2. On an easel pad, draw a Haddon Matrix.
3. You will list in each block as many different causal and contributing factors as possible that need to be considered in the prevention and cause of an injury or risk. When complete, circle the cell or cells that lend themselves to the greatest opportunities to prevent or mitigate risk.
4. Be prepared to report to the class.

This page intentionally left blank.

ACTIVITY 3.2 (cont'd)

Applying the Haddon Matrix: Windows of Opportunity

Cooking Fires in Kitchens	Factors			
	Host/Human (Individual)	Agent/Vehicle (Equipment)	Environment	
			Physical	Social/Economic
Pre-Event Phase				
Event Phase				
Post-Event Phase				

This page intentionally left blank.

ACTIVITY 3.2 (cont'd)

Applying the Haddon Matrix: Windows of Opportunity

Children Age 5 and Under Drowning in Swimming Pools	Factors			
	Host/Human (Individual)	Agent/Vehicle (Equipment)	Environment	
			Physical	Social/Economic
Pre-Event Phase				
Event Phase				
Post-Event Phase				

This page intentionally left blank.

ACTIVITY 3.2 (cont'd)

Applying the Haddon Matrix: Windows of Opportunity

Flash Flooding	Factors			
	Host/Human (Individual)	Agent/Vehicle (Equipment)	Environment	
			Physical	Social/Economic
Pre-Event Phase				
Event Phase				
Post-Event Phase				

This page intentionally left blank.

ACTIVITY 3.2 (cont'd)

Applying the Haddon Matrix: Windows of Opportunity

	Factors			
Falls to People 65 and Older in Their Homes	Host/Human (Individual)	Agent/Vehicle (Equipment)	Environment	
			Physical	Social/Economic
Pre-Event Phase				
Event Phase				
Post-Event Phase				

This page intentionally left blank.

SELECTING RISK-REDUCTION STRATEGIES

-
- A collage of four black and white photographs. The top-left photo shows a fire station at night with its lights on. The top-right photo shows a fire truck parked at a scene with people around it. The bottom-left photo shows a firefighter spraying a large amount of water from a hose. The bottom-right photo shows a firefighter holding a circular object, possibly a fire extinguisher or a piece of equipment.

Slide 3.24

A circular diagram illustrating the interconnected components of a system. Five black arrows point clockwise from one component to the next, forming a continuous loop. The components are labeled as follows:

- Education** (top)
- Engineering** (top-right)
- Enforcement** (bottom-right)
- Economic incentives** (bottom-left)
- Emergency response** (left)

Slide 3.25

- SM 3-37

- B. Education/Behavior change interventions.
1. Measures involving the education of a population at large, targeted groups, or individuals and efforts to alter specific behaviors.
 2. To influence voluntary behavior change in such a way as to increase the ability of people to control their own destiny.
- C. Characteristics of educational interventions.

EDUCATION AS AN INTERVENTION

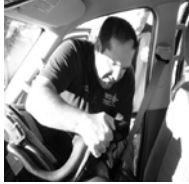
- Education interventions:
 - Raise awareness.
 - Provide information and knowledge.
 - Ultimately produce the desired behavior.
- Tend to be active measures.

Slide 3-26

- D. The education intervention influences the behavior of the audience to refrain from the risky behavior or to take action to reduce risk.
1. Raise awareness.
 2. Provide information and knowledge.
 3. Ultimately produce the desired behavior.
- E. Most often, educational interventions tend to be active measures.
1. Active interventions depend on someone doing something in order to be safe.
 2. Effective only if people do what they are supposed to do.
 - a. Firefighters wear seat belts.
 - b. Check temperature of bath water.
 - c. Put on a motorcycle or bicycle helmet.

EDUCATION AS AN INTERVENTION (cont'd)

- There is a difference between true education and promotion/marketing.



Slide 3-27

F. Differences among information, promotion/marketing and education.

1. Contacts with the public and presentations are, in most cases, informational.
2. The International Fire Service Training Association (IFSTA) describes information presentations as those covering theory and technical knowledge, such as the facts of fire growth and spread, and provides the background information that is often essential to skills development, sometimes called a technical lesson.

EDUCATION AS AN INTERVENTION (cont'd)

- Effective education will:
 - Increase knowledge.
 - Change attitudes.
 - Encourage behavior change.
 - Be measurable.

Slide 3-28

3. Educational programs and materials include information to increase knowledge, change attitudes, and encourage behavior change; they are also measurable.

EDUCATION AS AN INTERVENTION (cont'd)

- Promotional materials and efforts are used to sell the image of the fire service.
 - Going to every community event without measurable outcomes falls into the category of information and promotion/marketing.

Slide 3-29

4. Promotional materials and efforts are used to sell or market the image of the fire service, considered advertising hype.
 - a. Promotion is important to advance community risk reduction and to have visibility in the community.
 - b. If it cannot be measured, it falls into the category of informational, raising awareness or promotional.
5. You must consider where to get the biggest bang for your buck. If you are doing education, you will plan strategically. Going to every community event without measurable outcomes falls into the category of information and promotion/marketing.

EDUCATION AS AN INTERVENTION (cont'd)

- The role of behavioral science.
 - Understand why people do what they do.
 - The role that risk and perception of risk play.
 - Factors that influence people to protect themselves.

Slide 3-30

- G. The role of behavioral science in community risk reduction.
 1. We need to understand why people do what they do as it relates to community risk.

2. The role that risk and the perception of risk play.
3. Factors that influence people to protect themselves and others from risk-taking and unhealthy behaviors.
4. Research on seat belt use suggests the following:
 - a. Participative education — contracts and participant commitment. When people are asked for a written or oral commitment, there is stronger motivation to use seat belts. Many students at NFA have signed a contract to wear their seat belts.
 - b. Incentives — the likelihood increases that an individual will change his or her behavior when positive reinforcement or rewards are involved.
 - c. Behavioral feedback — signs placed on highways or in vehicles have been successful in reminding people to fasten seat belts and reduce their speed.
 - d. Modeling — critical to model the correct behavior. Whether at home, vehicle or workplace, we all have a responsibility to model the right behavior.

**EDUCATION AS AN
INTERVENTION (cont'd)**

- Addressing behavioral factors.
 - Predisposing factors.
 - Enabling factors.
 - Reinforcing factors.

Slide 3-31

H. Addressing behavioral factors.

1. Predisposing factors — what makes people likely to adopt healthy or risky behaviors or lifestyles?
 - a. Includes knowledge, beliefs, values and perceptions, all of which facilitate or hinder motivation for change.

- b. Also can include unalterable variables such as age, gender and race and the role they play.
 - c. Target audiences must be included in program planning to address their needs.
 - d. Listening and communicating with target populations often can be effective in influencing their knowledge, attitudes and practices.
- 2. Enabling factors — conditions that facilitate or hinder whether people adopt and maintain healthy behaviors and lifestyles.
 - a. Encompass the availability and accessibility of community resources and skills to perform a specific task.
 - b. Include personal skills and resources necessary to make change.
 - c. Involve a community commitment to address issues.
 - d. Involve training community organizations to meet the needs of the community.
- 3. Reinforcing factors — relate to feedback, attitudes and actions of influential people such as family, friends, professionals, community leaders and the media that support or hinder adopting healthy behaviors or fostering healthy environmental conditions.
 - a. Feedback can be positive or negative.
 - b. Includes rewards, incentives or punishment for continuation of the behavior.

ENGINEERING/ENVIRONMENTAL INTERVENTIONS



- Measures involving changes in the physical environment.
 - Design, development and manufacture of safety products.

Slide 3-32

- I. Engineering/Environmental modification interventions.
1. Measures involving changes in the physical environment; the design, development and manufacture of safety products.

ENGINEERING/ENVIRONMENTAL INTERVENTIONS (cont'd)

- Changes are the result of advances in technology.
 - Fire sprinklers.
 - Smoke alarms.
 - Helmets.
 - Air bags.
- Tend to be passive in design.



Slide 3-33

2. Changes are the result of advances in technology.
- a. Fire sprinklers.
- b. Smoke alarms.
- c. Helmets.
- d. Air bags.
3. Products are designed to be safe for people to use every day.
4. Tend to be passive in design.
5. Passive measures protect without anyone having to do anything.
- a. Generally are built into products, equipment or the environment such as shortening electrical cords on coffee pots, manufacturing hot water heaters with preset safe water temperatures, and child-resistant caps on medicine bottles.
- b. Generally more effective since they work automatically, with no action required by the people being protected.
- c. Once passive measures are instituted, they are immediately and permanently successful.
6. Very few measures are truly passive. Many require some involvement.

- a. Changing batteries in smoke alarms.
 - b. Putting on helmets and seat belts.
 - c. Placing child in safety seat.
7. Proxy measures are proven by research or generally accepted to be associated with reduced injury morbidity, mortality and dollar loss.

ENACTMENT/ENFORCEMENT INTERVENTIONS

- Involve:
 - Passing, strengthening, enforcing laws.
 - Issuing and enforcing regulations.
 - Developing standards and guidelines for devices and products.
- Used with penalties for not following laws.

Slide 3-34

J. Enactment/Enforcement interventions.

1. Involve:
 - a. Passing, strengthening and enforcing laws.
 - b. Issuing and enforcing regulations.
 - c. Developing standards and guidelines for devices and products.
2. Used with penalties for not following laws to influence the actions of people and businesses to reduce risk.

ENACTMENT/ENFORCEMENT INTERVENTIONS (cont'd)

- Public policy may involve:
 - Changing behavior.
 - Changing environments.
 - Requiring products to meet standards.
- Takes place in political arena.
- Chief's responsibility.

Slide 3-35

3. Public policy may involve changing behavior, changing environments in structures, or requiring products to meet certain standards.
 - a. Fear of penalties is a motivation.
 - b. Laws prohibiting smoking in public buildings are legislating behavioral change.
 - c. Life safety codes, with their descriptions of exit widths, occupant capacity, and fabric flammability ratings, are developed to modify the physical environment.
4. Public policy takes place in the political arena and is primarily the chief's responsibility.
5. Political action is required in determining service levels, program implementation and project funding.
6. Fire service programs and projects are just one of many competitors for limited public funding.

ENACTMENT/ENFORCEMENT INTERVENTIONS (cont'd)

- Successful public policy characteristics:
 - Public support.
 - Legislative history.
 - Consistent with mission.
 - Compatible with social values.
 - Accurate identification of problem and solution.
 - Clear statement of policy.

Slide 3-36

7. Successful public policy has unique characteristics.

a. Public support.

b. Legislative history.

- Often public policy changes are attempted many times before they succeed and, as in motorcycle helmets, revised after originally adopted. Prior to attempting adoption of a new public policy, it is wise to review its history.
- Determine if it has been tried before.
- Research to see if a model policy or law has been developed or is in use.
- Find out when and where it was successful, if it was.
- Research the history of the attempts at the local, state and federal levels.

c. Consistent with the mission.

d. Compatibility of the policy with a social value.

e. Accurate identification of problem and solution.

f. Clear statement of policy.

ENACTMENT/ENFORCEMENT INTERVENTIONS (cont'd)

- Who will implement and enforce.
- Consistency of enforcement.
- Commitment by enforcers and implementers.
- Incentives for implementation and compliance.
- General support of the law by the community.

Slide 3-37

- g. Identification of bureaucracy responsible for implementation and enforcement.
- h. Consistency of enforcement.
- i. Commitment to law by enforcers and implementers.
- j. System of incentives to encourage implementation and compliance.
- k. General support of the law by the community.

ENACTMENT/ENFORCEMENT INTERVENTIONS (cont'd)

- Limitations and restrictions.
 - Society must see need for the rule.
 - Difficult to convince people.
 - Opponents argue against legislation.


Slide 3-38

- 8. There are limitations and restrictions to implementation of public policy.
 - a. Society must see the need for the rule.
 - b. Generally, Americans support a law if they perceive that it will stop someone else from injuring them (e.g., regulating drunk drivers and speeders).

- c. Generally, Americans oppose a ruling that prevents one from harming oneself (e.g., gun control, motorcycle helmet laws, and seat belt laws) and laws that affect us individually.
 - d. Difficult to convince people that the increased costs of preventable injuries to society affect them as well.
 - e. Opponents argue against using legislation, mainly due to personal freedom and cost.
9. Motivations for compliance.
- a. The majority of laws are not easily observable.
 - b. The fear of being caught in noncompliance is not effective for the majority of people.

ENACTMENT/ENFORCEMENT INTERVENTIONS (cont'd)

- Why do people comply?
 - Civic-mindedness.
 - Morality.
 - A sense of fairness.
 - Trust.
 - Legitimacy.




Slide 3-39

- c. Why do people comply?
 - Civic-mindedness: obeying a rule because it is good for others or for society as a whole.
 - Morality: obeying a law because it is ethical to obey the law.
 - A sense of fairness: obeying a law because it applies to everyone equally.
 - Trust: believing that the law reflects the interest of the community.
 - Legitimacy: having faith or trust in the legal procedure.

10. Public policy requires good organizational skills, patience, understanding of the political process, timing and persistence.

ENACTMENT/ENFORCEMENT INTERVENTIONS (cont'd)

- Most successful public policies are accompanied by education and engineering interventions.



Slide 3-40

11. Most successful public policies are accompanied by education and engineering interventions.
- a. Education is the foundation for all the E's. Education may be needed to create the environment for public policy.
 - b. An engineering solution may have to be developed before a public policy can be enacted.
12. Public policy requires that some agency enforce the policy. This can affect the organization, the policy itself, the political support base, and the community in various ways.

ECONOMIC INCENTIVES

Measures to influence behavior.

- Positive economic incentives:
 - Reward people monetarily.
- Negative economic incentives:
 - Punish people monetarily.

Slide 3-41

- K. Economic incentive interventions.

1. Measures used to influence behavior, either positively or negatively.
 - a. Positive economic incentives reward people monetarily for behaving in a certain manner or making certain choices.
 - b. Negative economic incentives punish people monetarily for behaving in a certain manner or making certain choices.
2. Why are economic incentives offered?
 - a. Companies often use economic incentives to persuade people to do commerce with them (e.g., sales, coupons, discounts, buy-one-get-one-free, and frequent flyer miles).
 - b. Government also uses economic incentives: Montgomery County, Maryland, is offering a one-time 50 percent reduction in property taxes for retrofitting a home with a fire sprinkler system.
 - c. Developers can build more densely if sprinklers are installed.
 - d. Conversely, tickets, fines and citations are used to discourage people from choosing unsafe behaviors.

EMERGENCY RESPONSE AS AN INTERVENTION

Adequately staffed, trained and equipped
cadre of responders is essential.



Slide 3-42

- L. Emergency response interventions.
 1. Emergency response interventions are used by emergency responders (e.g., fire, law enforcement, EMS) to mitigate the risk.
 2. The emergency response capability of the community must be considered during the risk assessment process.

3. In the Haddon Matrix, emergency response is used during the event (e.g., house fire or post-event in extricating a person from an auto crash).
4. Some risks can be mitigated only by adding new emergency capability or enhancing current emergency response capability.
 - a. Emergency service personnel are the best trained and equipped to handle emergencies.
 - b. There are occasions when emergency services are overwhelmed by demands.
5. Emergency service capability can be greatly enhanced by well-organized, well-managed Community Emergency Response Teams (CERTs).
6. CERTs have a twofold role:
 - a. To **prepare** for a disaster by:
 - Identifying potential hazards in homes and workplaces.
 - Reducing hazards to the degree possible before a disaster strikes.
 - b. To **respond** after a disaster by:
 - Locating and turning off utilities wherever possible.
 - Suppressing small fires.
 - Treating life-threatening injuries until assistance can be obtained.
 - Conducting light search and rescue operations.
 - Helping disaster victims cope with their emotional stressors.
 - c. To recover by learning.

V. ANALYZE COST VERSUS BENEFIT

**ANALYZE COST VERSUS
BENEFIT**

- Assess the case for a project or proposal.
- Weigh the total expected costs against the total expected benefits to guide choosing the best option.

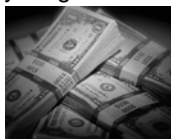
Slide 3-43

- A. Cost/Benefit analysis is a term that refers both to:
1. A formal discipline used to help assess the case for a project or proposal.
 2. An informal approach to making decisions of any kind.
- B. Cost/Benefit analysis helps to:
1. Determine estimates of the resources to perform the program.
 2. Formulate program objectives.
 3. Decide whether to undertake the program.
- C. Involves weighing the total expected costs against the total expected benefits of one or more actions to guide choosing the best option.
- D. Since resources such as money and time are limited, an organization usually cannot undertake every proposed program or project.
- E. Decision-makers decide whether to undertake a program by weighing the benefits of the program against the cost of the resources required.
1. Generally, a program or project is approved when its benefits exceed its costs.
 2. Cost/Benefit analysis provides the structure and support for making such decisions.

3. Some benefits are monetary benefits, such as the dollar amount of reducing operating costs or increasing revenues.
 4. Assigning a monetary value to express costs and benefits will help decision-makers assess the value of a program.
- F. Cost/Benefit analysis typically is used by governments to evaluate the desirability of a given intervention in markets.
1. The aim is to gauge the efficiency of the intervention relative to keeping the status quo.
 2. The costs and benefits of the impacts of an intervention are evaluated in terms of the public's willingness to pay for them (benefits) or willingness to pay to avoid them (costs).

ANALYZE COST VERSUS BENEFIT
(cont'd)

- Dollar value is assigned to everything.
- Cost/Benefit examines:
 - Direct costs.
 - Indirect costs.



Slide 3-44

- G. Assign a dollar value to everything.
1. All phases of the program are considered.
 2. Costs may be direct.
 - a. Direct costs are those costs that can be identified specifically with a particular sponsored project, an instructional activity, or any other institutional activity or that can be directly assigned to activities relatively easily with a high degree of accuracy.
 - b. Examples of direct costs:
 - Salaries, wages and fringe benefits of fire department personnel associated with community risk-reduction initiative or program.

- Materials and supplies such as chemicals, glassware, compressed gases and liquids, and program supplies.
- Travel, consulting services, equipment, toll charges, express mail, subject costs, and subcontracts.

3. Costs may be indirect:

- a. Indirect costs are those costs that are incurred for common or joint objectives and therefore cannot be identified readily and specifically with a particular sponsored project, an instructional activity, or any other institutional activity.
- b. Examples of indirect costs:
 - Services of the budget staff.
 - Salaries of personnel engaged in a broad range of department support activities such as clerks, administrative assistants, or other general staff.
 - Cost of utilities for buildings.
 - Office supplies, postage, local telephone and communications infrastructure.

VI. SELECT RISK-REDUCTION STRATEGIES/DESIGN THE PROGRAM

**SELECT RISK-REDUCTION
STRATEGIES/DESIGN THE PROGRAM**

- Consider what interventions might work.
- Combining interventions is best strategy.
- Not all potential interventions are feasible.
- Select interventions that are reasonable.
- Tailor interventions to meet community need.
- Use a team effort to design the program.

Slide 3-45

Designing the program.

- A. By following an organized process, the planning team develops an idea of what risk interventions might work and how best to get the job done.
- B. The next step is to identify the types of interventions that will be pursued and the supporting resources that will be required.
- C. Although it is important to aim high and pursue the use of combined interventions, be realistic when designing the program. Not every intervention identified during the process can possibly be implemented.
- D. Using the community profile and problem statement, the planning team should select interventions that have a reasonable chance of success.
- E. Intervention resources must be tailored to meet the needs of the local community. Materials must target the population and focus only on the key program messages.
- F. Designing the program is a team effort. The planning team can ensure that the program does what it is intended to do.

This page intentionally left blank.

ACTIVITY 3.3

Selecting Risk-Reduction Strategies

Purpose

Given a specific risk issue, propose how a combination of interventions (five E's) can be used to strategically address the risk.

Directions

1. Each table group will be assigned one of the following risks:
 - a. Table 1: cooking fires in kitchen.
 - b. Table 2: children age 5 and under drowning in swimming pools.
 - c. Table 3: flash flooding.
 - d. Table 4: falls to people 65 and older in their homes.
2. You will perform a causal chain analysis on your group's risk issue. This action will set up use of the five E's.
3. Next, you will propose how a combination of the five E's could be used to strategically address your risk. You should also revisit your responses to Activity 3.1: The Epidemiological Triangle and Causal Chain Analysis and Activity 3.2: Applying the Haddon Matrix: Windows of Opportunity. You must be specific in how you intend to employ the five E's in the pre-event, event and post-event phases.
4. You are to use the Student Activity Worksheet (SAW) to complete this activity.
5. You are allotted 20 minutes for this task.
6. Your group will summarize your recommendations.

This page intentionally left blank.

ACTIVITY 3.3 (cont'd)

Selecting Risk-Reduction Strategies

	ED	ENG	ENF	EI	ER
Pre-Event					
Event					
Post-Event					

This page intentionally left blank.

VII. MARKETING YOUR PROGRAM

MARKETING YOUR PROGRAM

- Marketing helps you:
 - Decide whom to influence.
 - Reach your target audience.
 - Determine how to influence behavior.

Slide 3-47

Reaching your audience.

A. Why promote your program?

There can be many reasons why a community risk-reduction program has been developed for a community. No matter the reason behind the program, the intended audience must be convinced of the need for the program and motivated to participate in it. A marketing plan for your program will communicate its benefits, which include lives saved, injuries prevented, property protected, and expenses avoided.

B. Developing a marketing plan.

1. “Social” marketing applies commercial marketing techniques to social problems. Marketing principles are the same for selling shoes or pizza as they are for promoting fire safety. It comes down to one basic principle: changing people’s behavior.
2. Creative promotion of your program uses easy-to-understand messages and repeats those messages through various channels to reach the largest audience.
3. Marketing helps you:
 - a. Decide whom you want to influence.
 - b. Reach your target audience.
 - c. Determine how to sway people to change their behavior.

C. Marketing defined.

1. “The process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational objectives” (American Marketing Association).
2. Marketing is more than just selling. It is everything your organization does to transfer your “product” (your service) to your “customer” (the public).

MARKETING YOUR PROGRAM
(cont'd)

- Relationship between sales and marketing.
 - Selling involves telling.
 - Marketing is asking and then listening.
 - Good marketing — product sells itself.

Slide 3-48

D. Relationship between sales and marketing.

1. Sales are only one element of marketing.
2. With effective marketing, selling is unnecessary.
 - a. Selling = telling (one-way process).
 - b. Marketing = asking (two-way process), then listening, then responding.
 - c. With effective marketing, you should know the customer’s needs so well that the product sells itself.
3. Marketing is actually a continuous, cyclical process, whereby everything is designed, implemented, assessed and redesigned in light of its impact on the consumer.

MARKETING YOUR PROGRAM (cont'd)

- Four P's of marketing.
 - Product.
 - Price.
 - Place.
 - Promotion.



Slide 3-49

E. The four P's of marketing.

1. Product — goods or services offered to the consumer.
2. Price — what the consumer must pay for the product.
3. Place (also known as distribution) — in other words, what makes the product accessible to the consumer?
4. Promotion — vehicles to communicate the product's value to the consumer.

F. Use the four P's of marketing when putting your plan together.

1. Product: What is the desired action you are asking your audience to take? What kind of fire safety program will you be providing?
2. Price: What is the cost, or what loss can be prevented by participating? How much time and effort will your audience have to expend to participate? Will the organization benefit financially? Are benefits to participants greater than their costs?
3. Place: Where will the audience perform the desired behavior, or where will your program take place? Will you make presentations at elementary schools or install smoke alarms in homes?
4. Promotion: How will you use direct communication, publicity and advertising to reach your audience and encourage participation in your program?

- G. In a nutshell, when conducting a community risk-reduction marketing campaign:
1. Identify what program to promote (e.g., increase use of smoke alarms in a given area).
 2. Identify your audience. What message do you want to get across? You may want to get a message across to several different groups; and in that case, it may be more effective to use different ways to influence each group.

VIII. THE BUYER

THE BUYER

- Identify your buyer.
 - Broader than your service population.
 - Anyone or group you want to market to.
 - Internal market — your people.
 - External market — the public.

Slide 3-51

- A. Who is your buyer?
1. Broader than merely your service population.
 2. Any individual or organization to which you wish to “sell” (market) your product.
 3. Different markets — internal and external.
 - a. Internal — your own people.
 - b. External — the public.
- B. The internal market.
- Define the internal market — your own people.

C. The external markets.

THE BUYER (cont'd)

- Marketing to the external buyer.
 - Assess your customer's needs.
 - Fashion programs to address those needs.
 - Communicate value of program.

Slide 3-52

1. Marketing effectively to the external “buyer.”
 - a. Assess your “customer’s” needs.
 - b. Fashion your programs (“products”) to address those needs.
 - c. Communicate the value of your product — that it will meet those needs.
2. Controlling your message.
 - a. Work through the internal market. Speak with one voice.
 - b. Communicate with your market via multiple sources.
 - c. Remember, marketing involves everything your organization does.
 - d. Work through key external markets to enhance your message.

THE BUYER (cont'd)

- Key external markets: government officials.
 - Elements of lobbying:
 - Educating lawmakers.
 - Building relationships.
 - Winning support.



Slide 3-53

D. Key external markets: government officials.

1. Elements of lobbying.
 - a. Educating lawmakers.
 - b. Building relationships.
 - c. Winning support.
2. Government officials are key external buyers.
3. When we work to achieve these objectives, we are engaging in marketing.
4. In addition to the typical individual contacts involved in lobbying, novel marketing approaches can be employed when dealing with government officials.

THE BUYER (cont'd)

- Key external markets: media.
 - How is working with the media similar to working with elected officials?
 - Build positive relationships.
 - Mutual respect and trust.
 - Educate about our service.
 - Cooperation.




Slide 3-55

E. Key external markets: the media.

1. The media are another one of our “external” markets.
2. The media give us an important channel to communicate our message to our community.
3. How is working with the media similar to working with elected officials?
 - a. Seeking to build positive, long-term relationships.
 - b. Achieve mutual respect and trust.
 - c. Educate about our service and its needs and constraints.
 - d. Cooperate for mutual benefit.
4. Media can serve as an intermediary between the emergency services and the public.
5. Note that both efforts require a long-term, ongoing effort to achieve success.

THE BUYER (cont'd)

- Key external markets: fundraising.
 - Communicate.
 - Distribute message.
 - Convey needs.
 - Sell your need.



Slide 3-56

F. Key external markets: fundraising.

1. Our market: any prospective funder.
2. Depends on type of project.
3. Can be public, governmental agencies or private organizations.

4. Everything you do reflects your image.
 - a. Communicate the nature of your services (product).
 - b. Distribute your message to the right prospects (place).
 - c. Convey financial needs and return on investment (price).
 - d. “Sell” your product or need — communicate product value (promotion).

STRATEGIES FOR PROMOTING PROGRAMS

- Distribute teaser material first.
- Plan a kickoff rally.
- Identify and reduce barriers.
- Pretest ideas.
- Publicize benefits of program.
- Assess results.

Slide 3-58

G. Strategies for promoting programs.

1. Getting the word out. Developing a program can be a challenging task, especially when you think about all the different audiences you are trying to reach. This section includes additional information and materials that will further help to promote your program in your community with your target audience in mind. Below are some strategies you can use for getting your program off the ground.
 - a. Distribute teaser material for the upcoming program.
 - b. Plan a kickoff rally.
 - Announce your program to potential collaborators.
 - Provide handouts that explain the mission of the program for attendees to take home.

- c. Identify barriers to participation. Use interviews, surveys, focus groups or other methods to find out what makes it difficult or unattractive for people to participate. Put yourself in the shoes of each of your target audiences. Is escape planning too silly for high school students? Do parents know two ways out of every bedroom — on the second floor?
 - d. Reduce barriers to participation. Plan ways to make participation easier, more accessible and more attractive. Your fire department might provide incentives for participation.
 - e. Pretest your ideas on a small number of people, and then revise your plan based on the results.
 - f. Publicize the benefits of the program and the way in which people can take advantage of your efforts.
 - g. Assess the results of your program, and make revisions where necessary.
2. Publicize success stories. Has anyone escaped a fire using information learned from a fire department presentation? When called to a home to respond to a fire, ask questions to determine how occupants escaped and how they knew what to do. You can use success stories to:
 - a. Respond to public inquiries about the program.
 - b. Educate decision-makers.
 - c. Reveal that funds are well-spent.
 - d. Make the target population aware of your program.
 - e. Display program progress.
 - f. Request needed resources.
3. The following table gives you an overview of each step in a sample marketing plan in order to help you develop your own. Marketing steps for a “Promoting Smoke Alarm Installation” program are included as an example.

Sample Marketing Plan

Step	Description	Example: Promoting Smoke Alarm Installation
Identify the program	A product or service related to fire safety.	Smoke alarm installation program
Identify your audience	The target audience for the program and the motivation (the benefits of the program for the audience).	Older adults
Identify barriers	Use interviews and surveys of focus groups to find out what gets in the way of program. Consider awareness, access and cost.	Accessibility and price
Remove barriers	Change cost, where you get the product/service; use communication, publicity and advertising.	<ul style="list-style-type: none"> • Discounts for smoke alarms. • Smoke alarm installation days.

- a. Use an elevator speech that focuses on the heart of your program. An elevator speech is a prepared 15- to 30-second presentation that grabs attention in a few words.
- b. Conduct a mail campaign.
- c. Hand out brochures and fact sheets:
 - To neighbors when called to respond to house fires.
 - To employees when called to worksites.
 - During fire safety month activities and events.
- d. Plan safety messages based on seasonal risks such as:
 - Summer barbeques.
 - Winter heating.
 - Holiday cooking.
 - Holiday trees and decorations.
- e. Contact local media and key players to discuss and distribute promotional material for your event.

H. Marketing materials.

1. You will need a variety of materials to get your message out and promote your program. First, determine what key messages are appropriate for your specific program — for instance, in a fire safety program:
 - a. Get out and stay out.
 - b. Go to your family's meeting place.
 - c. Crawl low under smoke.
 - d. Test smoke alarm batteries monthly.
2. There are a number of materials you can develop at little or no cost to you. Use your key program messages in these essential materials.
 - a. PowerPoint presentations.
 - b. Brochures.
 - c. Fact sheets.
 - d. Success stories.
 - e. Advertisements and news articles.
 - f. Posters.

I. Beyond the basics.

1. Media coverage is important in educating your community about your program because it carries your message to a much larger audience. To keep things simple, think about designating a representative who is comfortable with public speaking as your media contact. This will help to ensure that the same message is being communicated each time and the materials you've developed support that message.
2. Working with the media is essential to raise awareness and communicate important information to the public. It can seem a bit overwhelming if you aren't prepared to give an interview, create a press release, or even answer questions at a public event. Use the tips below, compiled from the Colorado Nonprofit Association "Working With the Media: Nonprofit Toolkit," to prepare for working with the media.

STRATEGIES FOR WORKING WITH MEDIA

- Develop short, key messages.
- Avoid acronyms and jargon.
- Have a key media contact.
- Develop a press kit.
- Pick media outlets according to needs.

Slide 3-59

- Develop short, key messages that you can refer to quickly.
- Remember your audience, and try to avoid using acronyms and jargon.
- Try to relate your information/program to current local events.
- For consistency, have one key person designated as the media contact.
- Develop a press kit with fact sheets, quotes and background information for announcing larger events or programs in your community.
- Make sure you have all the details for your message by answering the following five W's:
 - Who are you? Whom do you represent?
 - What news are you reporting? Is there an event? Are you publicizing a particular issue or event?
 - When will the event take place?
 - Where will the event take place?
 - Why should others care about what you are doing?

3. Determining which media outlets. First think about who your program is trying to reach — general community, children, adults, teens, etc. Then think about where that group of people gets most of their information about local news and events. Defining your audience will help you determine which media outlets to use (newspapers to online social media for communication), but traditional channels are still important. A sample list of sources that can be used for your media effort is given below:
 - a. TV, radio and newspaper reports or other individuals, such as well-known community bloggers.
 - b. Local newsletter editors (church, school, etc.).
 - c. Hosts and producers of local television and radio news programs.
 - d. Online social media outlets such as email lists, personal blogs, Facebook, Google Plus, Twitter, etc., can provide free publicity quickly and to large groups of people with the ability to promote your event on your audience's own pages.
4. Help the media help you. Develop a press information packet that contains material on the program you are trying to promote “in a nutshell.” Have these packets ready to share electronically so you can use them to educate reporters on the issue and create interest in a story. Materials you may want to include in your press information packet consist of:
 - a. Information about your department and prevention program.
 - b. Contact information for the press representative.
 - c. Background data (such as fact sheets) on fire statistics and other relevant information.
 - d. Information on how the program will address community needs.
 - e. Materials that help reporters write a story, such as recent research on local fire statistics, quotes from the community, and an overview of the program.
5. Make the best use of social media tools. Use online social media tools such as Facebook and Twitter to connect to other organizations and potential supporters who might not be aware of your program.
 - a. These tools quickly broadcast your message to a large audience.
 - b. A blog post can be promoted by a Twitter message (“tweet”) and by posting on your Facebook page.

- c. Videos can be uploaded to YouTube and shared via Twitter and Facebook; likewise photos can be uploaded to Flickr and shared.
- d. Any videos, fact sheets, or other materials that you have developed for your program are easy to post to Facebook — in fact, it is easier to post materials to Facebook than to a regular website.
- e. If you have a valuable message or program to promote, others will help share your information on their own Facebook pages or Twitter accounts.
- f. The specific services mentioned here may become yesterday's news by the time that you read this; these services are examples only.
- g. Stay up to date on the latest popular social media tools by talking to your partners and your audience to find out what they are using and follow them.

STRATEGIES FOR REACHING THE PUBLIC

- Word of mouth.
- Social media.
- Surveys and inserts.
- Take home materials from schools.
- Community postings; national campaigns.

Slide 3-60

J. Final tips: spreading the word to reach people.

1. Use word of mouth. The best source of a referral is someone who was helped and thought you offered a good service. Encourage your users to “tell a friend about us.” Getting user referrals is a true indication of a program’s reach into a community.
2. Use social media. Your audience and your supporters and partners are online. Use blogs, email discussion lists, and social networks (such as Facebook and Twitter) to expand your safety message outreach.

3. Identify and target “gatekeepers” who affect your population’s ability to participate. In rural areas or some cultures, for example, fathers are often seen as “gatekeepers” for the entire family. If they say “no,” no one in the family will take part. Reach out directly to fathers, mothers, grandparents or teens — whomever you can identify as gatekeepers/decision-makers.
4. Distribute or conduct a basic survey concerning your issue. Surveys provide a vehicle for communication with individuals or households. You can distribute a survey in schools (with permission from the principal or school district), at community events, or one-to-one on the street. Keep questions simple, and request contact information for follow-up.
5. Place inserts in local/regional newspapers. Distribution of inserts/flyers in local papers is cost effective and allows for broad distribution. They reach many people who would not otherwise see your material. Use the free newspaper if one exists in your community.
6. Send information home with students in school materials. Work with local schools to send flyers home with children’s report cards or other “must see” school communications.
7. Create a display window in a prominent area. Put your information in a window on a well-traveled street, at a popular gathering area, or in a bus depot.
8. Use children’s artwork in your promotional material. Children’s artwork uses unconventional language and has community appeal.
9. Use businesses that distribute products in the community. Get flyers/inserts in supermarket shopping bags or in takeout food containers, such as pizza boxes. These messages reach many people throughout the community, at low cost to you.
10. Advertise in restaurants. Place your program’s message on food tray liners or paper placements at restaurants. This provides a nontraditional context for getting the message to many people in a potentially fun setting.
11. Participate in national promotional campaigns. Create activities to tie in with Fire Prevention Week in October, the Great American Smokeout, or even Grandparents Day to spread awareness of your program. Many of these campaigns provide materials to help develop community.

12. Be creative and interactive at health fairs and community events. Provide incentives for people to take information, fill out a questionnaire, or complete an application. These may include raffles, small gifts for children or adults, or children's activities. Have unusual attention-getting table displays or have staff wear costumes or eye-catching attire, such as T-shirts saying, "Need a free smoke alarm? Talk to me."
 13. Offer training to those who can help spread your fire safety messages. Don't overlook teachers, senior center administrations and staff, scout leaders, camp counselors, and others who might spread the word.
 14. Be creative in seeking partnerships. Work with services and agencies that commerce with your population.
- K. As your program begins to take off and you are out in the community delivering your fire safety messages, you should begin to take note of the impact your program is having on the community.

ACTIVITY 3.4

Marketing Strategy for a Selected Risk-Reduction Program

Purpose

Design a marketing strategy for a selected risk-reduction program.

Directions


1. You will work in your table groups to process this activity.
2. Consider the risk-reduction program that you are proposing for your assigned table group issue, and perform the following actions.
 - a. Propose a marketing strategy that includes the four P's of marketing for your program.
 - b. Suggest how the various types of media could be used to support your strategy.
3. There are 20 minutes allotted for this task.
4. There are 10 minutes allotted for table groups to share their responses with the class at large.

This page intentionally left blank.

IX. DEVELOPING AN IMPLEMENTATION PLAN/EVALUATION STRATEGY

**DEVELOPING AN IMPLEMENTATION
PLAN/EVALUATION STRATEGY**

- Reasons given for not evaluating:
 - We think it worked.
 - They loved our program.
 - Participation greater than expected.
 - We handed out a lot of stuff.



Slide 3-62

A. Why we don't evaluate.

Oftentimes we don't evaluate because:

1. We think it worked.
2. People tell us they love our program.
3. Participation is much greater than expected.
4. We handed out 100 smoke alarms.
5. We gave away 300 bike helmets.

B. What is **not** evaluation?

1. Do your statements say anything about the value of your program?
2. Do you have data to back up your program claims?
3. Does your data say anything about your program?

C. Why is evaluation so important to community risk-reduction programs?

D. What can evaluation tell us about program activities?

1. Did they work?
 - a. Yes. Why?

b. No. Why?

2. Evaluation can give you answers.

DEVELOPING AN IMPLEMENTATION
PLAN/EVALUATION STRATEGY (cont'd)

- Evaluation can reveal:
 - Good things you already know.
 - Good things you don't know.
 - Bad things you already know.
 - Bad things you don't know.

Slide 3-64

E. There are only four things evaluation can reveal.

1. Good things you already know about.
2. Good things you don't know about.
3. Bad things you already know about.
4. Bad things you don't know about.

F. What is program evaluation, really?

DEVELOPING AN IMPLEMENTATION
PLAN/EVALUATION STRATEGY (cont'd)

- Program evaluation is the systematic collection of information about the activities, characteristics and outcomes of a program to make judgments about the program, improve program effectiveness, and/or informed decisions about future programming (Michael Quinn Patton, 1982).

Slide 3-65

Program evaluation is the systematic collection of information about the activities, characteristics and outcomes of a program to make judgments about the program, improve program effectiveness, and/or informed decisions about future programming (Michael Quinn Patton, 1982).

- G. Having used data, conducted community assessment, analyzed interventions, and selected specific interventions, it is time to develop an implementation/evaluation plan. This is also known as descriptive evaluation.

DEVELOPING AN IMPLEMENTATION
PLAN/EVALUATION STRATEGY (cont'd)

- Think in terms of drawing an itinerary.
 - Where are you going?
 - For what purpose?
 - How will you get there?
 - What may influence your choices?

Slide 3-66

1. Think of this as drawing up an itinerary.
 - a. Where are you going?
 - b. For what purpose?
 - c. How will you get there?
 - d. What may influence your choices?

DEVELOPING AN IMPLEMENTATION
PLAN/EVALUATION STRATEGY (cont'd)

- Vision.
- Problem statement.
- Goal.
- **Specific, Measurable, Achievable, Realistic and Time framed (SMART) objectives:**
 - Outcome.
 - Impact.
 - Process.
 - Formative.

Slide 3-67

2. The plan consists of:
 - a. Vision.
 - b. Problem statement.
 - c. Goal.
 - d. **Specific, Measurable, Achievable, Realistic and Time framed (SMART) objectives.**
 - Outcome.
 - Impact.
 - Process.
 - Formative.
 - e. The plan is written to document what you intend the program to do.

**DEVELOPING AN IMPLEMENTATION
PLAN/EVALUATION STRATEGY (cont'd)**

- Steps in evaluation:
 - Define population.
 - Define evaluation questions.
 - Identify types of information to be collected.
 - Choose suitable methods.

Slide 3-68

- H. Steps in evaluation.
1. Define the population.
 2. Define the evaluation based on the goals and objectives.
 3. Identify the types of information to be collected.
 4. Choose suitable methods for collecting the information.

**DEVELOPING AN IMPLEMENTATION
PLAN/EVALUATION STRATEGY (cont'd)**

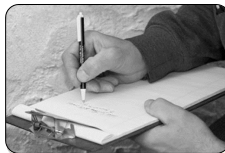
- Design instruments to collect information.
- Collect and analyze information.
- Analyze and interpret findings of evaluation.
- Communicate results.

Slide 3-69

5. Design instruments to collect information.
6. Collect and analyze information.
7. Analyze and interpret findings of the evaluation.
8. Communicate results.

**DEVELOPING AN IMPLEMENTATION
PLAN/EVALUATION STRATEGY (cont'd)**

- Practical problems:
 - Small numbers.
 - Rare events.
 - Limited data.
 - Limited time frame.
 - Community mobility.
 - Program contamination.



Slide 3-70

- I. Practical problems in conducting evaluations of community programs.
 1. Small numbers.
 2. Rare events.
 3. Limited data.
 4. Limited time frame.
 5. Community mobility.

6. Program contamination.

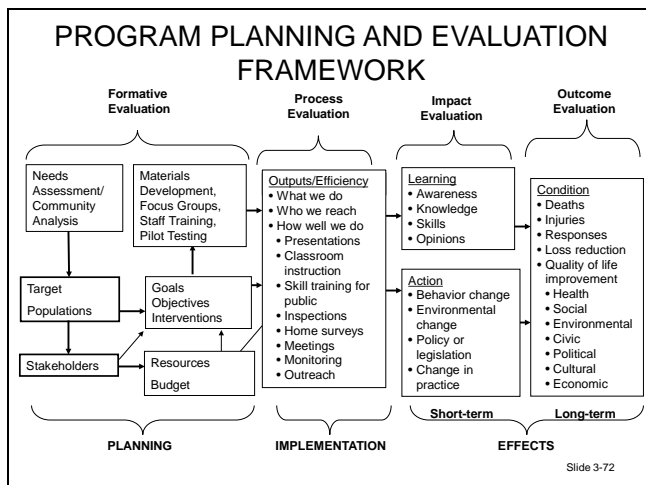
DEVELOPING AN IMPLEMENTATION PLAN/EVALUATION STRATEGY (cont'd)

- Components of a comprehensive evaluation:
 - Formative.
 - Process.
 - Impact.
 - Outcome.

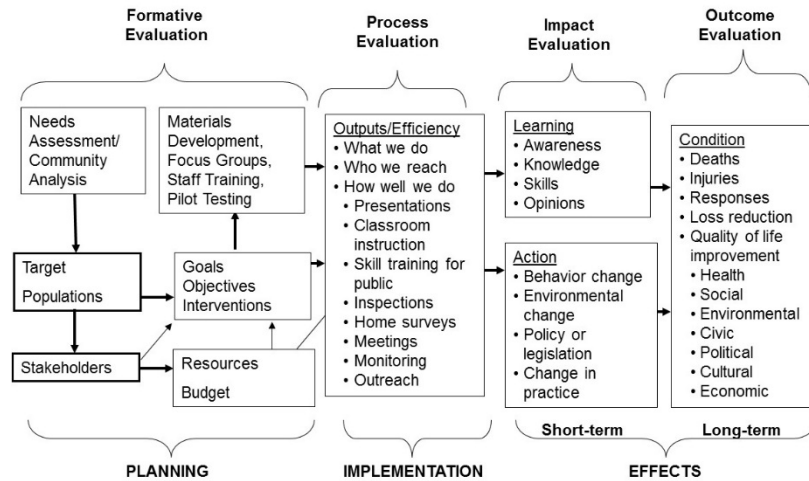
Slide 3-71

J. Components of a comprehensive evaluation.

1. Formative Evaluation.
2. Process Evaluation.
3. Impact Evaluation.
4. Outcome Evaluation.



Program Planning and Evaluation Framework



K. Evaluation stages.

1. Planning stage: Formative Evaluation — before the program.
2. Implementation stage: Process Evaluation — output/activities, outcomes monitoring.
3. Effects stage: Impact Evaluation — short-term effects and Outcome Evaluation — long-term effects.

DEVELOPING AN IMPLEMENTATION PLAN/EVALUATION STRATEGY (cont'd)

- Review the plan for Central City.



Slide 3-73

IMPLEMENTATION/EVALUATION PLAN

Central City Life Safety Coalition Bike Safety Program

Vision: Central City will be one of the safest communities in the region.

Problem Statement: The problem is Central City has a high rate of bicycle incidents involving children between the ages of 10-18 years as compared to similar communities.

Goal: To decrease the number of bicycle incidents involving children between the ages of 10-18 years in Central City.

Outcome Objectives

By December 2020, reduce bicycle injuries requiring hospitalization to children between the ages of 10-18 years in Central City from 18.6 per 10,000 population in 2015 to 15.9 per 10,000 population. Target setting method 20 percent. Evaluation methods: EMS reports, hospital records and anecdotes. (Example uses rates per 10,000.)

or

As compared to baseline data, the following changes will have occurred:

By December 2020, there will be a 20 percent reduction in bicycle injuries requiring hospitalization to children 10-18 years in Central City. Evaluation methods: EMS reports, hospital records and anecdotes.

By December 2020, there will be a 20 percent reduction in bicycle vehicle collisions involving children 10-18 years cycling in Central City. Evaluation methods: EMS reports, police reports and anecdotes.

Impact Objectives

By June 2017, the Central City Department of Public Works will have installed signage for bicycle routes throughout the city. Evaluation measure: signs installed. Interventions: Education and Engineering.

By August 2017, the local school board will adopt a state-approved K-12 health and safety curriculum with emphasis on highway safety in general, and bicycle safety in particular. Evaluation measure: adoption of curriculum. Intervention: Education.

By January 2018, the Central City Council will have adopted a bike helmet law for children 18 years and younger. Evaluation measure: passage of law. Interventions: Education, Engineering and Enforcement.

By January 2018, each public and private school in Central City will adopt and enforce written policies requiring safe bicycle practices to and from school, including proper use of bicycle helmets on school property. Evaluation measures: adoption and enforcement of policies. Interventions: Education, Engineering and Enforcement.

By January 2018, the Central City Council will have adopted a citywide off-road bicycle trail.

By June 2018, the Central City Police Department will begin enforcing bicycle laws and all laws that affect the safety of bicyclists, including those aimed at aggressive drivers. Evaluation measure: enforcement of law. Interventions: Education and Enforcement.

Evaluation measure: adoption of bicycle trail. Interventions: Education and Engineering.

By December 2019, the Department of Public Works will have marked lanes for on-road bicycle routes in Central City. Evaluation measures: marked lanes for on-road bicycle routes. Interventions: Education and Engineering.

As compared to baseline data, the following changes will have occurred:

By September 2019, there will be a 50 percent increase in the number of children 10-18 who wear bike helmets and wear them correctly. Evaluation methods: observational surveys, self-report surveys, and pretests and post-tests. Interventions: Education, Engineering and Enforcement.

By December 2019, there will be a 50 percent increase in the number of children 10-18 who know rules of the road as they pertain to cycling. Evaluation methods: observational surveys, self-report surveys, and pretests and post-tests. Intervention: Education.

By December 2019, there will be a 50 percent increase in the number of children 10-18 who obey all traffic signs, signals and other traffic control devices. Evaluation methods: observational surveys, self-report surveys, and pretests and post-tests. Intervention: Education.

By December 2019, there will be a 60 percent increase in the number of bicycles outfitted with safety equipment required by law. Evaluation methods: observational surveys, self-report surveys, and pretests and post-tests. Interventions: Engineering and Enforcement.

By December 2019, there will be a 50 percent increase in the number of parents/caregivers who can name three ways their children can be safe bike riders. Evaluation methods: pretests and post-tests. Intervention: Education.

Process Objectives

Starting January 2017, the project coordinator will monitor changes in the prevalence, incidence and severity of child bicycle injuries by collecting and analyzing data from city EMS run report data, the county's medical examiner's logs on fatalities, trauma registry data on children treated in three hospital emergency rooms and local clinics, police reports, and city traffic engineering department reports. Evaluation methods: injury/loss statistics and anecdotes. Intervention: Education.

By January 2017, the coalition will have drafted legislation requiring children 18 and under to wear bike helmets when cycling. Evaluation method: drafting of legislation. Intervention: Enforcement.

By April 2017, the project coordinator will begin implementing a social media campaign to raise awareness about bike safety and use various mediums to reach the target audience throughout the life of the program. Evaluation methods: counting number of tweets, tags, posts, news releases and articles, and estimating percent of public receiving the communications. Intervention: Education.

By June 2017, the coalition will develop a calendar to conduct regular meetings to review crash trends and to provide guidance in implementation. Evaluation measure: number of meetings planned.

By September 2017, the coalition will have acquired 300 bicycle helmets and developed a plan for distribution. Evaluation measures: counting number of helmets distributed. Intervention: Education, Engineering and Economic incentive.

By September 2017, the coalition will get approval from local schools to install two bike racks at each school by the end of the fall semester. Evaluation measure: approvals. Interventions: Education and Economic incentive.

By September 2017, the project coordinator will receive commitment from local merchants to offer discounts on bicycle helmets and display posters.

By October 2017, the project coordinator will have received permission from the school board to expand the program to three additional schools in Cleveland Park. Evaluation measures: letter of agreement and adoption of curriculum. Intervention: Education.

By October 2017, the station commander at the Cleveland Park Station, with the assistance of the coalition, will have begun conducting three bike rodeos a year (2017-2020) and will offer bike helmets to those qualifying. Evaluation measures: estimating number of people in attendance, number of helmets given away, number of children going through bike rodeo course. Interventions: Education, Engineering and Economic incentive.

By November 2017, the coalition will provide training to law enforcement personnel on effective measures to reduce crashes among bicyclists. Evaluation measure: training to law enforcement personnel. Intervention: Education.

By December 2017, the project coordinator will recommend to the board of education to adopt a specific health and safety education curriculum to address highway safety in general, and bicycle safety in particular, that meets state-approved K-12 health and safety objectives. Evaluation measure: recommendation made to board of education. Intervention: Education.

By December 2017, each member of the coalition will have conducted a training/presentation to a local government agency or a community group about the bicycle safety program. Evaluation measure: counting. Intervention: Education.

By January 2018, the project coordinator will have trained teachers in the three additional schools to use the curriculum consisting of classroom instruction, skill training in traffic, correct fit of helmets, and reinforcement by parents/caregivers. Evaluation measures: skill testing, counting and questionnaires. Intervention: Education.

By December 2019, the coalition will have distributed 300 bicycle helmets to children between the ages of 10-16 years in Cleveland Park who participate in the free and reduced lunch program and provided education about use, fit and maintenance of bicycles and bicycle helmets. Evaluation measure: counting number of bicycle helmets distributed. Interventions: Education, Engineering and Economic incentive.

Formative Objectives

By April 2016, the Life Safety Coalition will have conducted a community risk assessment of Central City. Evaluation measure: risk assessment conducted.

By April 2016, the Life Safety Coalition will select the risk issue and target population to address in Central City. Evaluation measures: risk issue and target population selected.

By May 2016, the Life Safety Coalition will identify core stakeholders in Central City and the Cleveland Park District to join the bicycle safety program. Evaluation measure: stakeholders identified.

By August 2016, the Life Safety Coalition will develop goals, interventions and objectives for the bicycle safety program. Evaluation measure: goals, interventions and objectives developed.

By September 2016, the Life Safety Coalition will begin a fundraising campaign to raise \$10,000 to purchase helmets for children and props for bicycles rodeos. Evaluation measure: fundraising campaign initiated.

By January 2017, the coalition will have developed culturally relevant and multilingual materials and resources to promote bicycle safety. Evaluation measure: development of materials.

By April 2017, the project coordinator will have trained all firefighters in the Central City stations on bike safety, how to conduct a bike rodeo, and fit helmets. Evaluation measure: training.

By April 2017, the coalition will have identified one elementary school to pilot the bicycle safety program. Evaluation measure: pilot selection.

By September 2017, the project coordinator will have trained teachers in the pilot school to use the curriculum consisting of classroom instruction, skill training in traffic, correct fit of helmets, and reinforcement to be given by parents/caregivers. Evaluation methods: skill testing, counting and questionnaires.

By October 2017, teachers in the pilot program will have taught lessons on bike safety and conducted pilot testing of students. Evaluation measure: lesson taught.

By October 2017, the project coordinator will have received commitment from local merchants to offer discounts on bicycle helmets and display posters. Evaluation measure: commitment from merchants.


By December 2017, the project coordinator and coalition will review various health and safety education curricula and textbooks to ensure that highway safety in general, and bicycle safety in particular, are included in the state-approved K-12 health and safety curriculum.

By January 2018, project coordinator, with the assistance of coalition, will review materials and make changes based on teachers' recommendations. Evaluation measure: review of materials.

X. DEVELOPING PROGRAM OBJECTIVES

DEVELOPING PROGRAM OBJECTIVES

- SMART objectives:
 - **S**pecific.
 - **M**easurable.
 - **A**chievable.
 - **R**ealistic.
 - **T**ime framed.



Slide 3-74

A. SMART objectives refer to an acronym designed around the five leading indicators of a solid program.

1. **Specific:** What precisely is going to be done and with or for whom?
2. **Measurable:** Is it quantifiable, and can it be measured?
3. **Achievable:** Can we get it done in the proposed time frame/in this political climate/for this amount of money/with resources and support available?
4. **Realistic:** Will this objective have an effect on the desired goal or strategy?
5. **Time framed:** When will the objective be achieved?

B. SMART objectives are developed for each evaluation stage.

DEVELOPING PROGRAM OBJECTIVES (cont'd)

- Ask stakeholders to help.
- Use a team approach.
- Weigh different perspectives.
- Reach consensus on what signals success.

Slide 3-75

C. Getting started.

1. Writing objectives is best handled as a group exercise among stakeholders.
2. Allows the team to be involved in planning, implementation and management of the program.
3. Allows opportunity to weigh different perspectives.
4. Consensus on what signals success.
5. Better chance of support for program.
6. Nothing for us without us.

OUTCOME EVALUATION

What it shows:

- Degree to which program has met goal.
- Reduction of incidents, deaths and injuries.
- Saves; sustained changes over time.
- Cost effectiveness and benefits.
- Directly related to acceptable level of risk.

Slide 3-77

D. Outcome Evaluation.

1. What it shows.
 - a. The degree to which the program has met its ultimate goal.
 - b. Reduction in deaths, injuries, property loss or emergency calls.
 - c. Saves attributed to the program.
 - d. Changes sustained over time.
 - e. Cost effectiveness of program.
 - f. Cost benefit of the program.
 - g. Directly related to community's acceptable level of risk.

2. Why it is useful.
 - a. Continuation of funding program growth, replication, improved interventions.
 - b. Provides evidence of success.
3. When to use.
 - a. At appropriate intervals for ongoing programs.
 - b. At the end when program is complete.
 - c. In the future, generally three to five years.

**OUTCOME EVALUATION
BASED ON:**

- Long-term implications.
- Statistical evidence.
- Anecdotal proof.
- Expected outcome.

Slide 3-78

4. Outcome Evaluation is based on:
 - a. Long-term implications.
 - b. Statistical evidence.
 - c. Anecdotal proof.
 - d. Expected outcome.

EXAMPLES OF OUTCOME EVALUATION OBJECTIVES

- By Dec. 31, 2020, reduce bicycle fatalities to children ages 10-16 years on public roads in Cleveland Park from 1.2 per 10,000 population in 2015 to 1 death per 10,000 population. Target setting method 20 percent.
- By Dec. 31, 2020, reduce nonfatal bicycle injuries requiring hospitalizations to children ages 10-16 years on public roads in Cleveland Park from 18.6 per 10,000 population in 2015 to 15.9 per 10,000 population. Target setting method 20 percent.

Slide 3-79

E. Examples of Outcome Evaluation objectives.

1. By Dec. 31, 2020, reduce bicycle fatalities to children ages 10-16 years on public roads in Cleveland Park from 1.2 per 10,000 population in 2015 to 1 death per 10,000 population. Target setting method 20 percent.
2. By Dec. 31, 2020, reduce nonfatal bicycle injuries requiring hospitalizations to children ages 10-16 years on public roads in Cleveland Park from 18.6 per 10,000 population in 2015 to 15.9 per 10,000 population. Target setting method 20 percent.

ACTIVITY 3.5

Developing Outcome Evaluation Objectives

Purpose

Provide experience in developing Outcome Evaluation objectives.

Directions

1. Each table group will be assigned one of the following risks:
 - a. Table 1: cooking fires in kitchens.
 - b. Table 2: children age 5 and under drowning in swimming pools.
 - c. Table 3: flash flooding.
 - d. Table 4: falls by people 65 and older in their homes.
2. You are to develop questions that you would like to know about concerning the Outcome Evaluation stage.
3. You are to develop at least two Outcome Evaluation objectives for your table group's risk issue.
4. You are allowed 15 minutes to complete this portion of the activity. Place your responses on an easel pad.
5. One table group will look at another table group's work and provide feedback.

This page intentionally left blank.

XI. DEVELOPING FORMATIVE OBJECTIVES

DEVELOPING FORMATIVE OBJECTIVES

- What it explores:
 - Risk assessment.
 - Stakeholder identification and involvement.
 - Program development.
 - Resource allocation.
 - Pilot testing.

Slide 3-81

Formative Evaluation (during development).

A. Formative Evaluation is used to:

1. Assess understanding of the causes of the problem.
2. Assess understanding of project goals, objectives, strategies and timelines.
3. Assess involvement of stakeholders and help target the evaluation.

B. What is Formative Evaluation?

1. Pilot testing of interventions.
2. Troubleshooting.

C. Why it is useful.

1. Allows for revisions.
2. Helps to ensure the program succeeds.

DEVELOPING FORMATIVE OBJECTIVES (cont'd)

- When to use:
 - During development of a program.
 - When a program is not performing as planned.
 - Program modification.
 - Program used with new target group.

Slide 3-82

D. When to use.

1. During development of a new program.
2. When an existing program:
 - a. Is being modified.
 - b. Has problems with no obvious solutions.
 - c. Is being used with a new population or to target a new problem or behavior.

E. Formative Evaluation measures:

1. Problem.
2. Target problem.
3. Stakeholders.
4. Knowledge levels of target populations.
5. Ability to reach target population.
6. Resources.
7. Plans and strategies.
8. Methods for implementing and evaluating program.
9. Pilot testing.

10. Barriers to success.
 11. Acceptance by personnel.
- F. Examples of Formative Evaluation questions.
1. What is the problem?
 2. What populations are most affected?
 3. What are our resources?
 4. Do participants understand that support is available from the fire department?
 5. Are the materials culturally and gender sensitive?

EXAMPLES OF FORMATIVE EVALUATION OBJECTIVES

- By Sept. 1, 2015, the project coordinator, with the assistance of the Fire and Life Safety Coalition, will have conducted a community risk assessment of Central City.
- By Jan. 1, 2016, the Fire and Life Safety Coalition will select a risk issue and target population to address in Central City.

Slide 3-84

Examples:

- a. By Sept. 1, 2015, the project coordinator, with the assistance of the Fire and Life Safety Coalition, will have conducted a community risk assessment of Central City.
- b. By Jan. 1, 2016, the Fire and Life Safety Coalition will select a risk issue and target population to address in Central City.
- c. By March 31, 2016, the Fire and Life Safety Coalition will identify stakeholders in the Cleveland Park District to join the coalition.

This page intentionally left blank.

ACTIVITY 3.6

Developing Formative Evaluation Objectives

Purpose

Provide experience in developing Formative Evaluation objectives.

Directions

1. Each table group will be assigned one of the following risks:
 - a. Table 1: cooking fires in kitchens.
 - b. Table 2: children age 5 and under drowning in swimming pools.
 - c. Table 3: flash flooding.
 - d. Table 4: falls by people 65 and older in their homes.
2. You are to develop questions that you would like to know about concerning the Formative Evaluation stage.
3. You are to develop at least three Formative Evaluation objectives for your table group's risk issue.
4. You are allowed 15 minutes to complete this portion of the activity. Place your responses on an easel pad.
5. One table group will look at another table group's work and provide feedback.

This page intentionally left blank.

XII. DEVELOPING PROCESS OBJECTIVES

DEVELOPING PROCESS OBJECTIVES

- Assesses ongoing activities.
 - Implementation.
 - Progress.
 - Number of programs.
 - Outreach.

Slide 3-86

Process Evaluation (during the program).

A. Can be used to assess ongoing project activities at two levels.

1. Implementation: Assess whether project is being conducted as planned.
2. Progress: Assess progress made by participants.

DEVELOPING PROCESS OBJECTIVES (cont'd)

- Measures:
 - Anything that can be counted.
 - Program outputs and efficiency.
 - Ability to stay within budget.

Slide 3-87

B. Measures:

1. Anything that can be counted.
2. Adherence to program timeline.
3. Outputs and efficiency.

4. Program monitoring.
 5. Ability to stay within budget.
- C. Changes must be documented in the Implementation/Evaluation Plan.

DEVELOPING PROCESS
OBJECTIVES (cont'd)

- Why it is useful.
 - Helps keep program delivery on track.
 - Early detection of problems.
 - Describes who is accountable for tasks.

Slide 3-88

- D. Why it is useful.
1. Helps to keep track of what you are doing organizationally to accomplish the program's objectives.
 2. During this time, the early detection of problems in implementation enables program managers to make adjustments before problem gets out of hand.
 3. If changes are made, they must be documented in the Implementation/Evaluation Plan, and new program objectives or program activities must be recorded.
 4. Addresses what you want to know about specific numbers and types of activities to be completed by specific dates.
 5. Describes who will be accountable.
 6. Written using action verbs (like monitor, coordinate, plan, write or publish) to show accountability.
- E. When to use.
1. Process Evaluation objectives normally are developed after the interventions have been selected and decisions are made based on who is going to do what when — not considered strategic.

2. Your project's milestones.
3. Most of the time under your control. You have control to make sure activities, meetings and trainings are conducted.

F. Examples of Process Evaluation questions.

1. How many people can we reach?
2. How many lessons were given to my teachers on bike safety?
3. How many bike helmets can the coalition distribute?
4. How many meetings does the coalition need to have?
5. How many presentations can coalition members give?

**EXAMPLES OF PROCESS
EVALUATION OBJECTIVES**

- By April 1, 2016, the project coordinator will have developed a social media campaign to raise awareness about bike safety.
- By Dec. 31, 2016, the station commander at the Cleveland Park Station, with the assistance of the coalition, will have conducted three bike rodeos and offered bike helmets to those qualifying.

Slide 3-90

G. Examples of Process Evaluation objectives:

1. By April 1, 2016, the project coordinator will have developed a social media campaign to raise awareness about bike safety.
2. By June 30, 2016, the coalition will have distributed 200 bike helmets to children in the district who participate in the free/reduced lunch program.
3. By Dec. 31, 2016, the station commander at the Cleveland Park Station, with the assistance of the coalition, will have conducted three bike rodeos and offered bike helmets to those qualifying.

This page intentionally left blank.

ACTIVITY 3.7

Developing Process Evaluation Objectives

Purpose

Provide experience in developing Process Evaluation objectives.

Directions

1. Each table group will be assigned one of the following risks:
 - a. Table 1: cooking fires in kitchens.
 - b. Table 2: children age 5 and under drowning in swimming pools.
 - c. Table 3: flash flooding.
 - d. Table 4: falls by people 65 and older in their homes.
2. You are to develop questions that you would like to know about concerning the Process Evaluation stage.
3. You are to develop at least three Process Evaluation objectives for your table group's risk issue.
4. You are allowed 15 minutes to complete this portion of the activity. Place your responses on an easel pad.
5. One table group will look at another table group's work and provide feedback.

This page intentionally left blank.

XIII. DEVELOPING IMPACT OBJECTIVES

DEVELOPING IMPACT OBJECTIVES

- Measures:
 - Are we meeting intermediate objectives?
 - Change in knowledge, attitudes and behavior.
 - Modification to an environment.
 - Adoption of public policy.

Slide 3-92

Impact Evaluation.

A. What it shows.

1. To assess immediate and intermediate results on learning and action.
2. Can start when program has made contact with at least one person or a group of people in the target population.
3. How the program is meeting its intermediate objectives.
4. The immediate changes in knowledge, attitudes, behavior, physical environment, or on public policy or practice.

B. Why it is useful.

1. To qualify for funding.
2. To chart progress.
3. To show quality improvement.

C. When to use.

1. At baseline and after each encounter with a target group.
2. The impact of the program can be measured by a variety of methods ranging from short questionnaires to observation.

- D. Most of the time out of your control, meaning that Impact Evaluation objectives are based on being able to determine change in someone else's knowledge, behavior, physical environment, or adoption of a public policy.
- E. Examples of short-term Impact Evaluation questions:
1. Can the coalition get bike helmet legislation passed?
 2. How many parents/caregivers know bike safety rules of the road?
 3. What is the knowledge gain of second graders after presentation?
 4. What percent of children are wearing helmets after exposure to the program?

EXAMPLES OF IMPACT EVALUATION OBJECTIVES

- By Dec. 31, 2018, as compared to baseline data, there will be a 25 percent increase in the number of children who wear bike helmets in the Cleveland Park District.
- By June 30, 2019, as compared to baseline data, there will be a 25 percent increase in children ages 10-16 who can name three rules of the road pertaining to cycling.

Slide 3-94

- F. Examples of Impact Evaluation objectives:

1. By Dec. 31, 2018, as compared to baseline data, there will be a 25 percent increase in the number of children who wear bike helmets in the Cleveland Park District.
2. By June 30, 2019, as compared to baseline data, there will be a 25 percent increase in children ages 10-16 who can name three rules of the road pertaining to cycling.
3. By Dec. 31, 2019, as compared to baseline data, there will be a 25 percent increase in the number of parents/caregivers who can name three ways their children can be safe bike riders.

ACTIVITY 3.8

Developing Impact Evaluation Objectives

Purpose

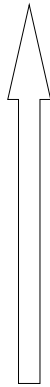
Provide experience in developing Impact Evaluation objectives.

Directions

1. Each table group will be assigned one of the following risks:
 - a. Table 1: cooking fires in kitchens.
 - b. Table 2: children age 5 and under drowning in swimming pools.
 - c. Table 3: flash flooding.
 - d. Table 4: falls by people 65 and older in their homes.
2. You are to develop questions that you would like to know about concerning the Impact Evaluation stage.
3. You are to develop at least three Impact Evaluation objectives for your table group's risk issue.
4. Identify what "E" each objective is classified under. Place your responses on an easel pad.
5. You are allowed 15 minutes to complete this portion of the activity.
6. One table group will look at another table group's work and provide feedback.

This page intentionally left blank.

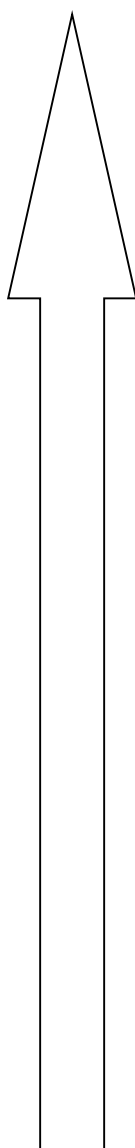
EVALUATION MEASURES FOR COMMUNITY RISK REDUCTION



Feature Measure	Type of Evaluation	Examples of Evaluation Measures	Instruments and Methods to Measure Change
1. End result	Outcome	Number of deaths, injuries, dollar loss, number of calls Saves attributed to program	Injury/Loss statistics
2. Public policy	Impact	Passage of legislation ordinances and codes	Legislation
3. Behavior	Impact	Percent of children wearing helmets Percent of homes conducting home safety checks Children who can do stop, drop, and roll	Observational survey Questionnaire Skill testing
4. Environment	Impact	Percent of chimneys cleaned annually	Home visit
5. Knowledge	Impact	Percent of public that knows how to extinguish a grease fire	Pretest/Post-test Self-report survey
6. Extent of program	Process	Percent of public receiving prevention materials	Estimating number of people attending presentations Counting, attendance sheets
7. Appeal and usage	Formative	Percentage of teachers who think materials meet state objectives and use them	Pilot testing of forms, questionnaires, personal interviews, focus groups
8. Institutional change	Formative	Introduction of safety curriculum Funding for programs Forming/Joining coalition	Letter of agreement, adoption of curriculum Budget Minutes of meeting

Adapted from Schaenman, Stambaugh et al., "Proving Public Education Works," 1990.

Slide 3-96



Feature Measure	Type of Evaluation	Examples of Evaluation Measures	Instruments and Methods to Measure Change
1. End result	Outcome	Number of deaths, injuries, dollar loss, number of calls Saves attributed to program	Injury/Loss statistics
2. Public policy	Impact	Passage of legislation ordinances and codes	Legislation
3. Behavior	Impact	Percent of children wearing helmets Percent of homes conducting home safety checks Children who can do stop, drop, and roll	Observational survey Questionnaire Skill testing
4. Environment	Impact	Percent of chimneys cleaned annually	Home visit
5. Knowledge	Impact	Percent of public that knows how to extinguish a grease fire	Pretest/Post-test Self-report survey
6. Extent of program	Process	Percent of public receiving prevention materials	Estimating number of people attending presentations Counting, attendance sheets
7. Appeal and usage	Formative	Percentage of teachers who think materials meet state objectives and use them	Pilot testing of forms, questionnaire, personal interviews, focus groups
8. Institutional change	Formative	Introduction of safety curriculum Funding for programs Forming/Joining coalition	Letter of agreement, adoption of curriculum Budget Minutes of meeting

Adapted from Schaenman, Stambaugh et al., "Proving Public Education Works," 1990.

Figure 3-4
Evaluation Measures for Community Risk Reduction

ACTIVITY 3.9

Quiz on Objectives

Purpose

Quiz each table group on its ability to determine the types of objectives.

Directions

1. Instructor will show a slide with a table number assigned.
2. That table group is to discuss what type of objective is on the slide and report to the class.

This page intentionally left blank.

XIV. GAINING PROGRAM APPROVAL

GAINING PROGRAM APPROVAL

- Community risk-reduction programs need official approval.
- Begins with fire chief.
- May ascend to higher levels.
- Know your local process of approval.

Slide 3-107

- A. Just as with emergency response policies, the creation of risk-reduction programs needs official approval so they can move forward.
- B. The initial approval usually begins with the fire chief and may extend as far as the municipality's administration or elected officials.
- C. Depending on the type of program, it may be necessary for the program to be reviewed by legal counsel.
- D. This process could be lengthy, but it is an important step that cannot be overlooked.
- E. Since risk-reduction programs are often comprehensive, it is critical to have relationships with all departments that constitute the municipality and with private organizations that provide community services.
- F. Oftentimes, research will identify other departments or private organizations that already have or are working on initiatives similar to what the fire department is about to propose.
- G. Knowing your municipality and community will help build collaboration so resources are ultimately directed in the right places.

XV. PILOT TESTING

PILOT TESTING

- Helps confirm readiness of program.
- Gauge target population's reaction.
- Decision-making tool.
- Ensure preparedness.

Slide 3-109

A. Why conduct a pilot test?

1. To confirm if you are ready for a full-scale implementation.
 - a. Serves as a trial run for your program.
 - b. Determine if any adjustments to your implementation plan or adaptations to the program are necessary.
 - c. Reveals unforeseen challenges that might arise during implementation.
 - Issues with setting and logistics.
 - Particular lessons or activities for which more staff training or attention may be necessary, etc.
 - d. Ensures that your staff is well prepared to handle issues that come up during the full-scale implementation.
2. Opportunity to gauge your target population's reaction to the program.
 - a. Best to select a pilot group that is demographically similar to your program's specific target population.
 - b. Help confirm whether or not your program is a good fit for your population and whether minor adaptations to the program are appropriate and/or necessary.

3. Make better decisions about how to allocate time and resources.
 - a. Determine if you need to spend more time or resources on particular aspects of the program.
 - b. You might learn that changes to your implementation plan are necessary or you need to allocate more time for completing certain activities than originally anticipated.
4. Ensure that you are well-prepared to measure the success of your program.
 - a. Can highlight if any adjustments to your evaluation plan might be necessary to ensure that you are measuring the desired impact and outcomes in the best way possible.
 - b. An opportunity to test your evaluation instruments as well.
 - c. Gives the implementation team a chance to work together before full implementation and troubleshoot any logistical issues that might arise.

PILOT TESTING — HELPFUL TIPS

- Have a system in place.
- Implement according to plan.
- Share early positive results about program.

Slide 3-110

B. Helpful tips for pilot testing.

1. Have a system in place to monitor and capture information about how well the program is working.
 - a. Have a plan for soliciting feedback, tracking the activities, and recording any adjustments from both the facilitators and the participants. This is part of your Process Evaluation.

- b. Develop a work plan and timeline to guide program implementation and to ensure that all tasks are completed as scheduled to successfully run the program.
 - c. Facilitators must understand the importance of data collection and evaluation for this project and be well-trained to ensure that the relevant tasks are completed.
- 2. Implement according to your plan, and then adjust as necessary.
 - a. Once you have piloted the program as it is written, things may come to light about the implementation that you may not have considered.
 - b. Think about creative ways to address issues that need more attention before full-scale implementation.
 - c. The pilot test will raise issues that may make it tempting to overhaul your plans. Remember, these findings are preliminary. Make moderate adjustments as necessary, but resist the urge to make sweeping predictions or assumptions about the full-scale implementation based on these early findings.
 - d. If you have chosen your program based on a recent assessment of the needs and resources in the community, it is unlikely that a complete overhaul is necessary.
- 3. Share the good news and involve the community.
 - a. Results from your pilot test are not the same as evidence from a large-scale evaluation. It can provide you with some early information about positive efforts that your program has that can be shared with those in the community who are interested in your program, such as funders and policymakers.
 - b. The pilot test is a good opportunity to begin building community awareness and strengthening key partnerships, which will be important and helpful for a successful full-scale implementation as well as with sustainability of the project.
 - c. Consider inviting members of the community to a gathering to celebrate the kickoff of your program once you have compiled the pilot results.

XVI. MONITORING BENCHMARKS/OBJECTIVES

MONITORING BENCHMARKS/
OBJECTIVES

- Benchmarks can be viewed as short-term or interim accomplishments.
- Encourages team to discuss alternatives.
- Can provide sense of achievement.

Slide 3-111

- A. Purpose of monitoring benchmarks.
1. Can be viewed as short-term or interim accomplishments.
 2. Allows team to break objectives into tasks.
 3. Tasks divided into a set of subtasks, each with its own solution.
 4. Often developed as the team develops its timeline for completing the task.
- B. Value of benchmarking.
1. Encourages team to discuss alternative approaches to the task.
 2. Team members have a better understanding of what is involved in each task.
 3. Provides team with a sense of achievement as tasks are completed.
 - a. A team meeting its benchmarks is likely to be doing well.
 - b. On the other hand, a team missing its benchmarks needs to understand why this is happening and what can be done.

**Table 3-1
Implementation Strategy**

IMPLEMENTATION STRATEGY			Bicycle safety and helmet program. Program manager: Comm. Risk Officer				Accreditation criterion “Risk Management” Accreditation category: Community Risk Reduction														
Objective: By Dec. 31, 2016, the station commander at the Cleveland Park Station, with assistance of coalition, will conduct three bike rodeos per year.																	Estimated startup cost: \$1,200 Estimated annual cost: \$400				
Task #	Task	Responsibility	Days	Cost	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
1	Research rodeo criteria	Comm. Risk Officer	6	100	x																
2	Develop training manual	Comm. Risk Officer	4	200	x																
3	Develop/Build rodeo prop	Planning Group	7	500			x														
4	Train fire/coalition personnel	Comm. Risk Officer	1/2					x													
5	Schedule rodeo	Station Commander	1/2					x				x									
6	Publicize event	Publicity Chair	14	300					x				x								
7	Conduct rodeo	Fire/Coalition personnel	3	100						x	x			x							
Totals			35	\$1,200																	

XVII. SUSTAINABILITY

SUSTAINABILITY

- Developing sustainability.
 - Continuation of program over long term.
 - Building on what works.
 - Evaluation integral to sustainability.
 - Policy change and sustainability are related.

Slide 3-113

A. Developing sustainability.

1. Refers to the continuation of a program over the long term.
2. Means not starting over, but rather building on what works.
3. Evaluation is integral to sustainability. Be able to show why your program is worth supporting.
4. Policy change and sustainability go hand in hand. The best prevention is policy change.
5. Build a case for support by putting into writing a clear statement of why people should pay attention to your program.

SUSTAINABILITY (cont'd)

- Goals of sustainability.
 - Integration into the community.
 - Acceptance by community.
 - Institutionalization by fire department.

Slide 3-114

B. Goals of sustainability.

1. Integration into the community.
 - a. Accepted by the community.
 - b. Used by the community.
2. Institutionalized into the core mission of the fire department.
 - a. Part of the larger network of services and resources.
 - b. Reflected in mission statement and budget.

SUSTAINABILITY (cont'd)

- Steps to sustainability.
 - Promote visibility.
 - Community involvement.
 - Create diverse base of support.
 - Show how program benefits the organization and the community.

Slide 3-115

- C. Steps to sustainability.
1. Promote visibility.
 2. Community involvement.
 3. Create diverse base for project funding and support.
 4. Identify how programs can improve the quality of life in the community.
 5. Show how programs benefit the organization and the community.

SUSTAINABILITY (cont'd)

- Alternatives to sustaining.
 - Grow or spin off.
 - Change focus.
 - Cut back or end.

Slide 3-116

D. Alternatives to sustaining.

1. Grow.
2. Spin off.
3. Change focus.
4. Cut back.
5. End.

E. Terminating programs.

1. Goals and objectives have been met.
2. No longer support or interest for the program.

This page intentionally left blank.

ACTIVITY 3.10

Writing an Implementation/Evaluation Plan

Purpose



Develop an Implementation/Evaluation Plan to address a specific risk in your home community.

Directions

1. Focus on the selected risk that is a problem in your home community.
2. Using your home risk, develop a written Implementation/Evaluation Plan based on the model format. The plan must incorporate SMART objectives and must have outcome, impact, process and formative objectives.
3. Integrate as many E's as practical into your program design.
4. Use the example Implementation/Evaluation Plan as a model.

This page intentionally left blank.

XVIII. SUMMARY





SUMMARY

In this unit, we have:

- Used a scientific approach to community risk reduction.
- Selected integrated risk-reduction strategies.
- Analyzed cost/benefit.
- Designed a marketing plan.
- Developed an Implementation/Evaluation Plan.

Slide 3-119



SUMMARY (cont'd)

- Discussed approval process.
- Discussed communicating results of evaluation.

Slide 3-120

This page intentionally left blank.

REFERENCES

- Centers for Disease Control and Prevention (CDC) and FEMA, U.S. Fire Administration (USFA) (2014). Fire Safe Senior Toolkit.
- CDC National Center for Injury Prevention and Control (2014). CDC Fire Safety Program Toolkit: A Comprehensive Resource for Fire Safety Educators.
- Community Tool Box (2014). University of Kansas. Lawrence, KS.
- Patton, M. Q. (1982). "Practical Evaluation" (1st ed.). Thousand Oaks, CA: Sage Publications.
- Thompson, Nancy J., Ph.D. and Helen O. McClintock. "Demonstrating Your Program's Worth." CDC: Revised March 2000.
- Wallack et al. (1999). "News for a Change: An Advocate's Guide to Working with the Media." Thousand Oaks, CA: Sage Publications.

This page intentionally left blank.

APPENDIX

EVALUATION AT A GLANCE

This page intentionally left blank.

Evaluation at a Glance

Phase 1: Formative Evaluation

When to use:

- During the development of a new program.
- When an existing program 1) is being modified, 2) has problems with no obvious solutions, or 3) is being used in a new setting, with a new population, or to target a new problem or behavior.

What it shows:

- Whether proposed messages are likely to reach, to be understood by, and to be accepted by the people you are trying to serve (e.g., shows strengths and weaknesses of proposed written materials).
- How people in the target population get information (e.g., which newspapers they read or radio stations they listen to).
- Whom the target population respects as a representative (e.g., a sports celebrity or the local preacher).
- Details that program developers may have overlooked about materials, strategies or mechanisms for distributing information (e.g., that the target population has difficulty reaching the location where training classes are held).

Why it is useful:

- Allows programs to make revisions before the full effort begins.
- Maximizes the likelihood that the program will succeed.

Phase 2: Process Evaluation

When to use: As soon as the program begins operation.

What it shows: How well a program is working (e.g., how many people are participating in the program and how many people are not).

Why it is useful:

- Identifies early any problems that occur in reaching the target population.

- Allows programs to evaluate how well their plans, procedures, activities and materials are working and to make adjustments before logistical or administrative weaknesses become entrenched.

Phase 3: Impact Evaluation

When to use: After the program has made contact with at least one person or one group of people in the target population.

What it shows:

- The degree to which a program is meeting its intermediate goals (e.g., how awareness about the value of bicycle helmets has changed among program participants).
- Changes in the target population's knowledge, attitudes and beliefs, environment and any change in policy.

Why it is useful:

- Allows management to modify materials or move resources from a nonproductive to a productive area of the program.
- Tells whether the program is moving toward achieving goals.

Phase 4: Outcome Evaluation

When to use:

- For ongoing programs (e.g., safety classes offered each year): at appropriate intervals.
- For one-time programs (e.g., a six-month program to distribute car seats): when program is complete.

What it shows: The degree to which the program has met its ultimate goals (e.g., how much a smoke alarm has reduced injury and death due to house fires).

Why it is useful:

- Allows programs to learn from their successes and failures and to incorporate what they have learned into their next project.
- Provides evidence of success for use in future requests for funding.

Source: Thompson, Nancy J., Ph.D. and Helen O. McClintock. "Demonstrating Your Program's Worth." CDC: Revised March 2000.

UNIT 4: LEADING ORGANIZATIONAL AND COMMUNITY CHANGE

TERMINAL OBJECTIVE

The students will be able to:

- 4.1 *Apply a change management model to a new or existing community risk-reduction initiative.*

ENABLING OBJECTIVES

The students will be able to:

- 4.1 *Explain the leadership challenges associated with creating change in the organization and community.*
- 4.2 *Describe the elements of the eight stages of successful change processes.*
- 4.3 *Explain the common reasons why organizational change efforts fail.*
- 4.4 *Develop a strategy for leading change as part of a community risk-reduction initiative.*
-

This page intentionally left blank.



UNIT 4: LEADING ORGANIZATIONAL AND COMMUNITY CHANGE

Slide 4-1

ENABLING OBJECTIVES

- Explain the leadership challenges associated with creating change in the organization and community.
- Describe the elements of the eight stages of successful change processes.

Slide 4-2

ENABLING OBJECTIVES (cont'd)

- Explain the common reasons why organizational change efforts fail.
- Develop a strategy for leading change as part of a community risk-reduction initiative.

Slide 4-3

I. KEY CONCEPTS

KEY CONCEPTS

- Effective prevention strategies require organizational support and long-term commitment.
- Organizational change can be difficult.
- Several factors generally contribute to the success of change efforts.

Slide 4-4

- A. Organizational change is necessary to keep pace with social, cultural and economic changes at the local, state and national levels.
- B. Organizational change can be difficult. Fire departments tend to resist change that is viewed as unnecessary. Success depends upon strong leadership and effective management of the change process.
- C. Community risk-reduction initiatives may require change at both the organizational and community level.
- D. Several factors generally contribute to the success of change efforts. However, in all successful efforts there is a common thread — strong, visionary leadership accompanied by effective management of the change process.

II. THE NATURE OF CHANGE

- A. Common characteristics of change.
 - 1. There are several characteristics that seem to be present during any organizational change initiative.
 - 2. The scope of the initiatives seems to determine how many are present and to what degree each one impacts the overall change process and the outcome of the initiatives.
 - 3. The same characteristics can be seen in change initiatives that involve a neighborhood or community.

4. These characteristics will be present, and they are a normal part of the change process.

B. Reasons for change initiatives.

C. Resistance to change.

THE NATURE OF CHANGE (cont'd)

- Why people resist change.
 - Self-interest.
 - Misunderstanding reasons for change.
 - Low tolerance to change.
 - Different assessment of situation.

Slide 4-7

1. Self-interest: Some change initiatives may cause an individual or group of people to lose something that they perceive as valuable.
 - a. The loss may involve money, stature, work freedom, benefits, etc. Also, the loss may involve an off-duty issue, such as time available for personal business.
 - b. For example, a change in rank structure may eliminate a specific rank level. Those who are in that rank may lose their supervisory role, stature, salary, etc.
 - c. Resistance due to self-interest can be the most difficult to overcome.
2. Misunderstanding the reasons for change: In some cases, leadership fails to communicate the reasons (justification) for the change adequately. This leaves department members questioning the need for the change.
 - a. Misunderstanding usually can be resolved through frequent communication about the change initiative.
 - b. Misunderstanding, when not addressed, can evolve into resistance due to self-interest.

3. Low tolerance to change: There are some individuals and organizations that have a low tolerance for any significant change, such as fear of the unknown. Regardless of the issue, change is resisted.
 - a. Low tolerance to change generally is caused by an overall feeling of worry about the outcome of the change initiative. In other words, members don't feel safe about the potential outcomes from the change.
 - b. Resistance from low tolerance to change is usually the result of several unsuccessful change initiatives or change initiatives that resulted in personal loss to the individual or group. Putting up barriers is a learned response.
 - c. Low tolerance to change can be overcome through change initiatives that lead to positive outcomes.
4. Different assessment of the situation: In this case, individuals or groups have heard the "company line" about the reason for the change, but they do not believe it is valid.
 - a. This can be caused by competing agendas within the department. In other words, another group has a perspective about the change that is different than the department leadership. That different perspective is communicated formally or informally throughout the department.
 - b. This may also be a reason for resistance when the fire chief or other senior leadership lacks credibility on the issue.

III. STAGES OF ORGANIZATIONAL CHANGE PROCESS

A. Team development model.

Dr. Bruce Tuckman published his four stages of team development model in 1965. A fifth stage was added in 1977. It was Dr. Tuckman's belief that all stages are necessary in order for the team to grow, confront problems, work on solutions, and produce results.

The five stages are as follows.

FIVE STAGES OF ORGANIZATIONAL CHANGE

- Forming.
- Storming.
- Norming.
- Performing.
- Adjourning.



Slide 4-8

1. Forming — Stage 1.

- Individuals want to be accepted by others and avoid conflict in this first stage. The focus in this stage is on sizing up the other individuals. The work is generally focused on routines, such as team organization and who is going to be responsible for what. Nothing much gets done in this stage.
- Team members are usually on their best behavior and generally absorbed with themselves.
- The leaders must be ready to answer questions about the team's purpose and objectives. There is a high dependence on the leader in this stage.

2. Storming — Stage 2.

- Team members open up and compete with each other on how to address issues in this stage. Factions develop, and there may be power struggles.
- Some storming can be resolved quickly, while other teams never leave this stage. The maturity of the team members determines whether the team will move out of this stage.
- This stage is necessary for the team to grow. It can be a painful process for team members who are adverse to conflict. Tolerance for different perspectives should be emphasized. The team will fail without tolerance and patience.
- The leader coaches.

3. Norming — Stage 3.
 - a. In this stage, the team starts to come together. The team starts to resolve its individual differences, appreciate the individual perspective, and respect the leader's authority.
 - b. The team comes together to develop ground rules and establish how things will get done. The individuals develop a commitment to the team. The organization begins to see progress toward the organizational goal.
 - c. Members may begin to socialize and ask each other for feedback.
 - d. There is often a lengthy overlap between storming and norming. This is because as new duties take shape, the team or group may lapse back into behavior from the storming stage.
 - e. The leader gains respect, and some of the leadership is shared by the team. The leader facilitates and enables.
4. Performing — Stage 4.
 - a. The team is functioning without friction and achieving the organizational and team goals. The team develops synergy. Team members work effectively together.
 - b. The team develops a heightened degree of autonomy. Disagreements are now resolved within the team, and the team makes the necessary changes as needed. The team does not need to be assisted or instructed.
 - c. The leader oversees and delegates.
5. Adjourning — Stage 5.
 - a. This stage involves the “unforming” of the group, ending of roles, letting go of the group, and the completion of tasks.
 - b. The successes of a highly functional team are celebrated.

VIDEOS

“THE 4 STAGES OF TEAM DEVELOPMENT”

<https://www.youtube.com/watch?v=7jeNJScvS4M>

“COACH CARTER TEAM DEVELOPMENT”

<https://www.youtube.com/watch?v=EJTFaJ1-UI0>

Slide 4-9

ADOPTION OF NEW IDEAS

- Innovators — 2.5 percent.
- Early adopters — 13.5 percent.
- Early majority — 34 percent.
- Late majority — 34 percent.
- Late adopters — 13.5 percent.
- Resistors — 2.5 percent.



Slide 4-10

B. Adoption of new ideas.

1. The model is adapted from Everett Rogers' book called “Diffusion of Innovations.” This Adoption of New Ideas curve is designed to identify the relative speed at which individuals adopted a new idea or concept.
2. The curve identifies six different levels of adoption. They are identified as follows:
 - a. Innovators — 2.5 percent of the original risk-takers who have the desire to try new things, even if they fail.
 - b. Early adopters — 13.5 percent of the individuals are a little selective about the original idea but do have the knowledge to come aboard and try the new innovation.

- c. Early majority — 34 percent are going to take their time before adopting the new idea. They are willing to embrace the new idea as long as they understand how it fits into their personal lives.
- d. Late majority — 34 percent of the individuals who adopt the new idea by peer pressure, emerging trends or economic necessity.
- e. Late adopters — 13.5 percent of the individuals who make decisions on past experiences. Depending on their past experience, the individuals may not be willing to accept the new idea of change but will conform to the new idea or change.
- f. Resistors — 2.5 percent of the individuals will never accept, embrace or make the behavior modifications to accept or conform to the proposed new change.

VIDEO

“FIRST FOLLOWER: LEADERSHIP
LESSONS FROM DANCING GUY”

<https://www.youtube.com/watch?v=fW8amMCVAJQ>

Slide 4-11

IV. THE EIGHT STAGES OF SUCCESSFUL CHANGE

- A. The eight-stage change process.
 - 1. The eight-stage change process was first documented by Dr. John Kotter in the early 1990s. It was developed following studies of change initiatives in government and the private sector.
 - 2. Organizations that were the most successful with change followed several common stages.
 - 3. The process is based on eight progressive stages rather than steps. Several stages should be occurring simultaneously with stages overlapping. This is different than a step-by-step process.

4. The stages may take months, with some ongoing from the beginning to the end of the initiative.
5. The change process can be used for both large and small initiatives. Also, it can be used to lead community change in the area of risk reduction.

This page intentionally left blank.

ACTIVITY 4.1

Eight Stages of Successful Change

Purpose

Help you identify the eight stages of successful change and give you the opportunity to connect each stage to real-life situations.

Directions

1. You will be divided into four working groups.
2. Your group will be assigned two of the stages.
3. Groups will prepare a presentation to teach the class about the two stages of change that they have been assigned.
4. You can choose the method and materials to use in your presentation.
5. In the presentation, your group will provide examples of situations that group members have experienced in their fire departments relating to the stage that was assigned as it pertains to community risk reduction.
6. One member or the whole group can deliver the presentation about the assigned two stages of change.

This page intentionally left blank.

IV. THE EIGHT STAGES OF SUCCESSFUL CHANGE (cont'd)

THE EIGHT STAGES OF SUCCESSFUL CHANGE

- Stage 1: Establish a sense of urgency.
 - Urgency is critical to motivating action.
 - Without urgency, people may not act.
 - Staff may not recognize need for urgency.
 - Example: a community risk issue.

Slide 4-13

B. Stage 1: Establish a sense of urgency.

1. Establishing a sense of urgency is critical to gaining the support of personnel for the change initiative.
2. Without urgency, personnel are unwilling to invest time or energy that is necessary for change.
3. Fire department personnel may not realize that there are urgent issues that should be addressed. A good example is a community risk issue.

THE EIGHT STAGES OF SUCCESSFUL CHANGE (cont'd)

- Build a compelling case.
 - Need statistics/hard facts.
 - Human side of the issue (testimonies).
 - Easy to understand.
 - Personnel must be able to relate to issue.
- Don't underestimate forces of complacency.

Slide 4-14

4. The role of the champion is to build a compelling case for change (i.e., a sense of urgency).
 - a. The case must be a combination of statistics and hard facts, as well as the human side of the issue that compels the heart.

- b. The case must be easy to understand, and personnel must be able to relate to the issue. Generally, this is best done by incorporating an operations perspective.
- 5. A common mistake by organizational leaders is to underestimate the forces of complacency within an organization (i.e., the desire to maintain the safe status quo).

**THE EIGHT STAGES OF
SUCCESSFUL CHANGE (cont'd)**

- Stage 2: Create a guiding coalition.
 - Build a strategy for causing change.
 - Guiding coalition must be selected carefully.

Slide 4-15

- C. Stage 2: Create a guiding coalition.
 - 1. The guiding coalition's purpose is to build a strategy for causing the change to happen.
 - 2. The guiding coalition must be selected carefully to ensure that the members have the skills and traits to be successful.
 - a. Formal power in his or her position in the department. This allows the guiding coalition members to enact the change.
 - b. Expertise in the area of change. Each member of the coalition must understand the issue to be able to provide useful input.
 - c. Credibility is needed to influence the views of other personnel in the department. This must be based in trust and earned credibility instead of formal authority.
 - d. Leadership is needed to push the change and vision forward.
 - e. Understand the inner workings of the department and its personnel. This helps the coalition member understand the impact of the change and how that change will effect operations.

- f. Every member must be trustworthy. This is required in order for the coalition to have candid conversations on the change process. Also, department personnel must be able to trust the information coming from the guiding coalition.
- 3. There must be a balance of leadership skills and managerial skills on the coalition.
 - a. Leadership skills are needed to promote the vision and move the change forward.
 - b. Management skills are needed to ensure that all the details of change are implemented.
- 4. There must be a variety of experiences and roles represented in the coalition.
 - a. This provides a multidimensional perspective of all those areas involved in, or impacted by, the change.
 - b. Without this multidimensional perspective, the coalition may create a vision or implementation strategy that is not feasible and cannot succeed.
- 5. There are two types of people to avoid on the coalition, even if it means that a level of senior leadership is not represented.
 - a. Those with large egos. This type of person will force his or her own agenda and ego onto the coalition. This destroys trust amongst the group and takes the focus off of the change vision.
 - b. Those who cause dissension and mistrust. This type of person will prevent the coalition from coalescing into a cohesive force for change. This eventually results in the change process failing.
- 6. The champion must work initially to build trust among the members of the guiding coalition. After it is established, maintaining a trusting, honest and candid environment is critical to the success of the change process.

THE EIGHT STAGES OF SUCCESSFUL CHANGE (cont'd)

- Stage 3: Develop a vision and strategy.
 - Vision — picture of the future as a result of the change initiative.
 - Vision serves as organizational compass.
 - Effective vision and strategy has several important characteristics:
 - Imaginable, desirable and feasible.
 - Focused but flexible.
 - Communicable.

Slide 4-16

D. Stage 3: Develop a vision and strategy.

1. A vision is a picture of the future as a result of the change initiative. The vision describes the destination of the change and why people in the organization should strive for the change.
2. The vision serves as an organizational compass in terms of action. A good vision statement helps everyone in the organization make correct decisions that are in support of the change. This aligns individual behavior with the change.
3. An effective vision and strategy has six important characteristics.
 - a. Imaginable: The vision can be understood easily and paints a clear picture of the desired outcome of the change process. A simple vision is better than a long, eloquent statement that no one can remember.
 - b. Desirable: The vision must appeal to the long-term interests of the department personnel and others who may be affected, such as citizens in the area of the community risk-reduction initiative.
 - c. Feasible: Both the vision and the strategy must be feasible within the resources and structure of the department. Any vision that seems unfeasible will be written off by personnel and other leaders in the organization.
 - d. Focused: Unlike a mission statement, the vision is very focused on what is to be achieved by the change process, in this case a reduction in some type of community risk. By being focused, the vision helps supervisors and leaders in the organization make decisions that are consistent with, and in support of, the vision.

- e. Flexible: This is a key to successful change in a fire department. The vision and strategy must allow individuals and companies to come up with alternatives when conditions change. This flexibility is a key to allowing decision-making at the neighborhood (individual company) level.
 - f. Communicable: The vision must be able to be fully explained in less than five minutes. If it takes more than five minutes, people will lose interest in the message. This goes back to being simple.
4. When developing the vision statement, the guiding coalition must answer three questions about the overall desired change. The answer to each question must be carefully considered and built into the vision:
- a. If the vision becomes reality, how will it affect the target audience in the community?
 - b. How will the vision impact elected and senior officials and other departments and agencies in the local government?
 - c. How will the vision affect the personnel of the department, especially those involved in implementing the strategy?

**THE EIGHT STAGES OF
SUCCESSFUL CHANGE (cont'd)**

- Must address the heart and the head.
- Guiding coalition must develop strategy.
- May be a time-consuming step.
- Strategy must focus on the results desired.

Slide 4-17

5. The vision must address both the heart and the head. This means that it must appeal to the values and emotions of the personnel. It must also be sound in terms of operations.
6. Following the development of the vision statement, the guiding coalition must develop a strategy for implementation of the change. This is the management task associated with the vision and the strategy. The strategy will be used for the implementation of the change.

7. The development of the vision statement and strategy may be a time-consuming step. If the guiding coalition involves members of the target audience in the community, this step may take months.
8. The strategy must focus on the results desired rather than simply activity. For example, if the vision is to reduce the number of wildland fires by 15 fires a year, then the strategy must include those tasks that will make that a reality. The champion must avoid filling the strategy with administrative details and meaningless activities.

**THE EIGHT STAGES OF
SUCCESSFUL CHANGE (cont'd)**

- Stage 4: Communicate the change vision.
 - Several key elements:
 - Simplicity of message.
 - Use examples to tell the story.
 - Multiple communication mediums and repetition.
 - Leadership behavior consistent with the message.
 - Explanation of perceived inconsistencies.
 - Two-way communication.

Slide 4-18

E. Stage 4: Communicate the change vision.

1. The vision for change only has power when it has been communicated throughout the organization. Every member of the organization should hear the vision, especially when it is time to implement the change.
2. “A vision has power when it is communicated to the organization.”
— Kotter
3. There are several key elements in the effective communication of a vision.
 - a. Simplicity of message. The message that is being communicated must be free of jargon and hard-to-understand language. Avoid business and administrative phrases.
 - b. Use examples to tell the story. The use of stories and metaphors creates a verbal picture. This is powerful, especially when trying to touch the heart.

- c. Multiple communication forms. The vision should be communicated in a variety of ways. Direct meetings, debriefings, reports, newsletters, etc. The communication methods should be both informal and formal.
 - d. Repetition. Personnel must hear the vision numerous times for it to sink into their values and beliefs. The repetition may be in short bits instead of formal meetings. The important thing is to get the message out as many times as possible.
 - e. Leadership behavior consistent with the message. While this does not involve verbal or written communication, “walking the talk” communicates strongly about the value of the vision. Leaders must communicate that they believe in the vision through their behavior.
 - f. Explanation of perceived inconsistencies. There will be perceived inconsistencies between what is envisioned and the reality of the situation. These perceived inconsistencies must be explained adequately and aggressively. However, it must be in a positive, open dialogue versus a defensive posture about the change.
 - g. Two-way communication. The champion and other leaders must provide opportunities for personnel to share their concerns, ask questions, and provide feedback. If only one-way communication is allowed, it will cast doubt and suspicion on the vision and the change process.
- 4. During communication, consideration must be given to how those receiving the message are feeling about the vision and the change process. This allows the communicator to empathize with those involved in the change.
 - 5. Organizational leaders must be willing to address the anxieties, fears and mistrust of personnel positively and frequently.
 - 6. The use of modern communication technology should be considered, such as email, text messages, etc. Technology provides the means for reaching more personnel more often with the message.

THE EIGHT STAGES OF SUCCESSFUL CHANGE (cont'd)

- Stage 5: Remove barriers to action.
 - Empower department personnel to implement the change at lowest levels.
 - Try to identify and address barriers during Stage 3.
 - Barriers will be discovered as change is implemented.

Slide 4-19

F. Stage 5: Remove barriers to action.

1. The purpose of Stage 5 is to empower department personnel to implement the change at the lowest levels possible, ideally at the neighborhood and company levels. This requires giving Company Officers (COs) the latitude and resources needed to take action.
2. The guiding coalition should attempt to identify and address barriers during Stage 3. However, barriers will be discovered as the change is implemented.

THE EIGHT STAGES OF SUCCESSFUL CHANGE (cont'd)

- Actions to empower personnel:
 - Continue to communicate vision.
 - Ensure that policies/procedures support the change.
 - Provide personnel with training in community risk reduction.
 - Confront officers who resist change.

Slide 4-20

3. There are several actions that the CO can take to empower personnel in the change process.
 - a. Continue to communicate the vision whenever possible. Explain how the change will bring the vision to a reality. Personnel must be able to relate the change to their day-to-day world.

- b. Ensure that the department's policies and procedures support the change, especially with officers having the latitude to implement the change at the company level.
- c. Provide personnel with training in community risk-reduction methods. Personnel must be given the skills needed to implement the change before being expected to do so.
- d. Confront officers who resist or impede the change.

THE EIGHT STAGES OF SUCCESSFUL CHANGE (cont'd)

- Stage 6: Create short-term successes.
 - Increase momentum and show that vision can be accomplished.
 - Short-term success is one of the best methods for reducing resistance to change.

Slide 4-21

- G. Stage 6: Create short-term successes.
- 1. Short-term successes in the change process increase momentum and show that the vision can be accomplished. This builds credibility for the change initiative.
 - 2. Short-term success is one of the best methods for reducing resistance to the change.

THE EIGHT STAGES OF SUCCESSFUL CHANGE (cont'd)

- Characteristics of short-term success:
 - Visible to everyone involved in the change.
 - Clear and measured with no doubt that it is an actual success.
 - Directly a result of the change initiative.
- Reward the change agents.
- Provide evidence that the sacrifices are worth it, especially when success involves the public.

Slide 4-22

3. The successes must be readily identifiable and clearly a result of the change initiative. There are three characteristics of a short-term success:
 - a. The success is visible to everyone involved in the change.
 - b. The success is clear and measured. There can be no doubt that it is an actual success.
 - c. The success is directly a result of the change initiative.
4. Short-term successes reward the change agents and those involved in implementing the change.
5. Short-term successes provide tangible evidence that the sacrifices associated with the change are worth it, especially when the success involves the public.

**THE EIGHT STAGES OF
SUCCESSFUL CHANGE (cont'd)**

- Stage 7: Consolidate gains.
 - As progress occurs, keep moving forward.
 - Counter any regression.
 - Continue to support change agents.

Slide 4-23

H. Stage 7: Consolidate gains.

1. As progress is made toward the vision, organizational leaders must keep the change initiative moving forward.
2. Until the change is part of the organizational culture, it will be at risk of regression, especially if those who still oppose the change are allowed to slow or stop further change.
3. Stage 7 depends on officers at the lowest level of change being given ongoing support to make change occur. These companies must be allowed to continue to foster change without dependence on other parts of the organization.

THE EIGHT STAGES OF SUCCESSFUL CHANGE (cont'd)

- Stage 8: Anchor new approaches to culture.
 - The Company Officer (CO) and executive leadership work to anchor the new approach to community risk reduction in the culture.

Slide 4-24

I. Stage 8: Anchor new approaches to culture.

1. During Stage 8, the CO and the organization's leadership work to anchor the new approach to community risk reduction in the culture.

THE EIGHT STAGES OF SUCCESSFUL CHANGE (cont'd)

- Organizational culture is powerful for three main reasons:
 - Individuals are indoctrinated early into the organization's culture.
 - Culture exerts itself through the actions of all the experienced and senior personnel.
 - Culture occurs without conscious intent or thought.
- Change that is not consistent with existing culture will regress without leadership.

Slide 4-25

2. Organizational culture is powerful for three main reasons.

- a. Individuals in the organization are generally selected and indoctrinated early into the organization's culture. For firefighters, this begins in recruit training.
- b. The culture exerts itself through the actions of all the experienced and senior personnel, especially those with formal and informal power.
- c. The culture occurs without much conscious intent or thought and is thus hard to discuss and challenge.

3. If the new change is not consistent with the existing culture, it will regress if leadership quits pushing the change. The greater the difference between the new change and the existing culture, the harder it will be to sustain the change.

**THE EIGHT STAGES OF
SUCCESSFUL CHANGE (cont'd)**

- Keys to moving new change into the existing culture:
 - Require the new behavior.
 - Ensure that there are tangible benefits.
 - Connect benefits to the new behavior.

Slide 4-26

4. Keys to moving the new change into the existing culture.
- a. Require the new behavior (program, services, etc.) for a long period of time.
 - b. Ensure that there are tangible benefits to the personnel as a result of the new behavior. This requires the change to produce results.
 - c. Connect the benefits to the new behavior through evaluations, discussions, personal experiences, etc. This requires a great deal of organizational discussion about the changes.
5. The effort to change the culture should come at the end of the change process instead of the beginning. This is due to the need to show tangible results from the change.

ACTIVITY 4.2

Bend, Oregon, Case Study

Purpose

Analyze a case study involving a community risk-reduction initiative to determine how the stages of change were addressed.

Directions

1. You will see the video “Beyond the Flames: The Story of Project Wildfire.” It is about a collaborative Fire Wise effort dealing with wildland fire interface risk-reduction efforts in the community of Bend, Oregon. During the video segment, make notes on the stages of change that your table was assigned.
2. Following the video, and working with your assigned group, answer the questions listed below. Be as specific as possible.

- a. What was the critical risk-reduction issue for Bend, Oregon?

- b. Who were the members of the leadership team for the initiative?

- c. Which of the eight stages of change were used by the leadership team?

- d. What were the leadership keys to the success of the initiative?
- _____
- _____
- _____
3. You have 20 minutes to complete the activity. Be prepared to share your answers with the class.

ACTIVITY 4.3

Creating Cultural Change Within the Fire Service

Purpose

Propose a change management strategy for the fire service so that community risk reduction becomes an institutionalized value.

Directions

Part 1



1. Participate in a class discussion to identify what you believe to be the five greatest challenges facing our industry that often stymie community risk reduction from becoming an institutionalized value within our history. Based on consensus, your table group will post challenges on an easel pad and circle the one it believes is the biggest challenge.
2. You are allowed 30 minutes for this part.

Part 2

1. Work in your table groups, and respond to the following directive: Considering the responses by the class at large, propose a change management strategy of how the fire officer can lead an organization to adopt community risk reduction as an institutionalized value. You are allowed 30 minutes for this part.
2. Post the key points on an easel pad, and be prepared to present your suggestions to the class at large. You are allowed 30 minutes for this part.

This page intentionally left blank.

V. SUMMARY



SUMMARY

- Every CO will be required to lead some type of change initiative.
- Many community risk-reduction initiatives will involve change.
- The CO must be involved actively in the change process.

Slide 4-30

This page intentionally left blank.

REFERENCES

- DiFonzo, N. and Bordia, P. (1999). "A Tale of Two Corporations: Managing Uncertainty During Organizational Change." *Human Resource Management*, 37: 295-303.
- Kotter, J.P. (1996). "Leading Change." Cambridge, MA: Harvard Business Review Press.
- Kotter, J.P. and Cohen, D.S. (2012). "The Heart of Change: Real Life Stories of How People Change Their Organizations." Cambridge, MA: Harvard Business Review Press.
- Kotter, J.P. and Rathgeber, H. (2005). "Our Iceberg is Melting." New York, NY: St. Martin's Press.
- Rogers, E.M. (2003). "Diffusion of Innovation." Free Press.
- Tuckman, B. (1965). Forming Storming Norming Performing Model from <http://www.businessballs.com/tuckmanformingstormingnormingperforming.htm>. Retrieved Oct. 27, 2014.

This page intentionally left blank.

UNIT 5: BUILDING ORGANIZATIONAL AND COMMUNITY EQUITY

TERMINAL OBJECTIVE

The students will be able to:

- 5.1 *Develop strategies for building organizational and community equity for community risk reduction.*

ENABLING OBJECTIVES

The students will be able to:

- 5.1 *Define organizational equity.*
- 5.2 *Define community equity.*
- 5.3 *Explain the benefits of building organizational and community equity.*
-

This page intentionally left blank.



UNIT 5: BUILDING ORGANIZATIONAL AND COMMUNITY EQUITY

Slide 5-1

ENABLING OBJECTIVES

- Define organizational equity.
- Define community equity.
- Explain the benefits of building organizational and community equity.

Slide 5-2

I. KEY CONCEPTS

KEY CONCEPTS

- Must identify and engage stakeholders.
- This needs to happen early in process.
- Champion needs to build equity among stakeholders.
- Equity is similar to a savings account.

Slide 5-3

- A. It is the role of the champion to identify and engage stakeholders in the communities who have an interest in the community risk-reduction process. This engagement must be done even before the risk-reduction process begins. It must be part of the normal operations of the fire department.
- B. The key to gaining the support of a community or neighborhood group is to first gain its trust by building community equity. That equity is similar to deposits in a bank account — nothing deposited, nothing to be withdrawn. The department must build trust and credibility on a day-to-day basis by the services and programs provided to the community.
- C. Successful community risk reduction is 60 percent public policy and local politics and 40 percent programmatic. This requires the champion to be an effective politician at the local level. This is a role that is required if that person is to be able to influence policy decisions. Politics cannot be separated from the policymaking process in the community.

II. BUILDING ORGANIZATIONAL EQUITY

ORGANIZATIONAL EQUITY
(cont'd)

- Potential for support of leadership.
- Meet needs of personnel — deposit made.
- Equity builds credibility and trust.
- Need support — withdrawal from account.

Slide 5-5

- A. An overview of organizational equity (internal influence).
 - 1. Organizational equity is the positive potential for support of the organization's leadership due to the day-to-day actions of the champion.
 - 2. When a champion has high organizational equity, he or she has influence within the organization. When organizational equity is lacking, the champion is not able to effectively influence the values or actions of those in the organization.

3. Organizational equity is developed when the champion meets the needs of the personnel. When needs are met, a deposit is made to an organizational “savings account.”
 4. By building equity, the champion builds credibility and trust with personnel. This credibility and trust is crucial to the support of any future initiative.
 5. When support is needed, the champion may make a withdrawal from the organizational “savings account.” This comes from the equity that has been built over time.
 6. When no equity is established, it is not possible to make withdrawals. An empty “savings account” means that the champion’s future initiatives may be met with resistance.
 7. Organizational equity is built every day by the champion. Meeting the little needs as well as the big needs makes deposits to organizational equity. Building equity must become part of the champion’s leadership style.
 8. Building organizational equity is a cornerstone of effective leadership.
- B. Building organizational equity for community risk reduction.

This page intentionally left blank.

ACTIVITY 5.1

Case Study — A Lesson in Change Leadership, Hagerstown, Maryland

Purpose

Analyze a case study that chronicles the career of a champion for risk reduction who struggled to gain organizational support for risk reduction.

Directions

1. View the video “Hagerstown, MD: A Community Risk-Reduction Case Study.”
2. Working in your small groups, you have 30 minutes to respond to the questions below.
3. Be prepared to report your group’s findings to the class at large. Other groups should supplement the reporting group’s responses.

Questions

1. What were some mistakes made by Mike in his initial quest to create/advance the smoke alarm program?

2. Why did the firefighters resent someone doing something that they didn’t apparently want to do themselves?

3. Initially, the fire chief and Mike failed to discuss the plan to visit all residences in the city as part of the smoke alarm program. How did this affect the attitude of the firefighters toward the program?

4. What actions did Mike take to gain the support of the firefighters for the smoke alarm program?

5. Mike lists four important skills that he learned through this experience: how to listen, be patient, communicate and compromise. Which of these skills have you developed well as a leader? Which of these skills do you need to develop?

6. What was the strongest evidence that Mike's strategies for gaining the support of the firefighters had been successful?

7. What are some of the strongest pieces of evidence that prove that the Hagerstown Fire Department has institutionalized risk reduction as a core organizational value?

8. What are some benefits enjoyed by the Hagerstown Fire Department (and the community at large) that can be directly attributed to its aggressive and strategic approach to community risk reduction?

9. How can you mentor/coach a person, who is assigned to community risk reduction, to be like Mike so this person can build organizational equity?

10. Each person in your group should identify something that he or she will do upon returning home to build equity for community risk reduction within his or her organization.

This page intentionally left blank.

III. BUILDING COMMUNITY EQUITY

COMMUNITY EQUITY

- Same concept as organizational equity.
- Result of ongoing, positive relationship with the community.
- Built over time; essential to success of community risk reduction.

Slide 5-9

A. Community equity.

1. Community equity is the positive potential for support, from the community and the stakeholders, for the community risk-reduction initiative.
2. Community equity is a result of an ongoing, positive relationship with the community.
3. Community equity must be built over time. It is not something that happens in a few days or a few weeks. It is the total sum of all the programs and services of the fire department and its members.
4. Community equity is essential to the success of any community risk-reduction process.
 - a. Having equity built in the community will bring stakeholders, other groups, organizations, etc. to the table to be involved with risk reduction.
 - b. Without community equity, these key players may not be willing to be in the process.

B. Building community equity.

1. Community equity is built each time a member of the community has a positive interaction with the department. This includes both emergency and nonemergency situations.

COMMUNITY EQUITY (cont'd)

- Of course, good emergency response is essential.
- Public education, customer service, and others that improve the quality of life.
- Value-added services.

Slide 5-11

2. Services such as public education, customer service, and others that improve the well-being and quality of life are most effective. More than a service, it is an attitude about serving the public.
 - a. These services are viewed as value-added by the public.
 - b. These types of services may have more positive impact with the public because they are not an expected service from the department.
 - c. There are numerous more opportunities to interact with the public during nonemergency situations than during emergencies.
3. Every person on the department has a responsibility to work to build community equity.
4. The department should be active in developing services that meet the needs of the public. Some call this customer service.
5. Implement an evaluation process that provides feedback from the public. Use this information to guide development of new services and modification of current services.

COMMUNITY EQUITY (cont'd)

- Strategies for building community equity:
 - Visibility.
 - Interaction.
 - Participation.
 - Response to citizens' needs.

Slide 5-12

6. The strategy for building community equity can be summarized by four elements. The four elements, taken collectively, put a human face on the fire department.
- Visibility:** The department units and personnel must be visible in the neighborhoods in nonemergency roles. This visibility should be informal and face-to-face with the citizens.
 - Interaction:** The firefighters must interact with the residents in the neighborhoods. Again, the interaction should be personal and face-to-face.
 - Participation:** Fire department staff, leaders and officers must actively and frequently participate in community organizations and events.
 - Response to citizens' needs:** The companies and department as a whole must be willing to respond to nonemergency and nontraditional requests for assistance. In addition, Company Officers (COs) must be given the authority to be responsive.

VIDEO

“WILMINGTON, NC COMMUNITY
RISK REDUCTION”

<https://www.youtube.com/watch?v=3McRG2IOkJM>

Slide 5-14

C. Challenges to community equity.

IV. COMMUNITY ENGAGEMENT

COMMUNITY ENGAGEMENT

- Working with and through stakeholders.
- Involve target populations.
- Reach out to community continuously.
- Before, during and after community risk-reduction initiative.

Slide 5-16

A. Community engagement.

1. Engaging the community means working with and through stakeholders to achieve common risk-reduction goals.
2. Community involvement and collaboration are the foundation for community risk-reduction initiatives.
3. The community, especially target audiences, must be involved in identifying the problems and developing solutions. The risk-reduction initiative has a direct impact on their well-being, and they have a right to be involved.

4. It is the responsibility of the champion to reach out to the community each and every day to build relationships with the various groups and target audiences in the community. This is done through the services and activities of the department.
5. The engagement process must occur before, during and after the risk-reduction initiative. It is an ongoing process that should never end.

**COMMUNITY ENGAGEMENT
(cont'd)**

- Principles of engagement process:
 - Be clear about goals.
 - Become knowledgeable about groups.
 - Establish relationships and gain trust.
 - Self-determination is right of stakeholders.

Slide 5-17

B. Principles of the community engagement process.

1. Be clear about the purpose of goals of the engagement effort and the groups being engaged in the process.
 - a. Identify stakeholders early.
 - b. Learn about their issues, environment, demographics, etc.
2. Become knowledgeable about the community or group.
 - a. Economic conditions.
 - b. Political structures.
 - c. Group values.
 - d. Demographic trends.
 - e. History in the community.
 - f. Experiences with previous risk-reduction efforts.
 - g. Perceptions of the fire department.

- h. Agendas in the community.
- i. Who are formal and informal leaders.
- 3. Establish relationships and gain the trust of the group or target audience.
 - a. This involves working with the formal and informal leaders on a regular basis.
 - b. Develop trust prior to starting the community risk-reduction initiative.
- 4. Remember that self-determination of the group is the right of the stakeholders.
 - a. Avoid being “Big Brother” or being perceived as “we’re from the government, and we have all the answers to your problems.”
 - b. The stakeholders must be involved in the process from beginning to end.

COMMUNITY ENGAGEMENT
(cont'd)

- Elements of successful engagement:
 - Establish partnerships early.
 - Recognize and respect diversity.
 - Mobilize community assets.
 - Provide leadership and guidance.
 - Release control to community.

Slide 5-18

C. Elements of successful engagement processes.

- 1. Community partnerships with the stakeholders are established early in the risk-reduction process.
- 2. All the groups involved recognize and respect community diversity. This includes diversity of income, interests, ethnicity, needs, etc.
- 3. The assets of the community are mobilized during the engagement and risk-reduction initiative. Where no assets existed, resources are developed through the process.

4. The control of the risk-reduction process is released to the community. The fire department and the champion provide leadership and guidance, but ultimate control is in the hands of the stakeholders.
5. Each organization involved makes a long-term commitment to the stakeholders and the process. This commitment is both in terms of human resources and future risk-reduction programs and services.

This page intentionally left blank.

ACTIVITY 5.2

Building Community Equity

Purpose

Develop a strategy for building community equity with local stakeholders for a risk-reduction initiative.

Directions

1. Working individually, consider your proposed risk-reduction initiative in your community. Describe the risk-reduction issue and an overview of your planned initiative.
2. Next, identify the community stakeholders for your risk issue. The stakeholders may be individuals, interest groups, community groups, etc. The stakeholders should have a specific interest in some aspect of the risk issue. List the stakeholders on the worksheets, and be as specific as possible. Limit the list to four stakeholders.
3. Finally, develop a fire department strategy for building community equity with each stakeholder group. The strategy must be plausible and achievable with your department's resources, policies and cultural values.
4. You have 45 minutes to complete the activity.

This page intentionally left blank.

ACTIVITY 5.2 (cont'd)

Worksheet

Community Stakeholder Group 1

Strategy for Gaining Support of Community Stakeholder Group 1

Community Stakeholder Group 2

Strategy for Gaining Support of Community Stakeholder Group 2



Community Stakeholder Group 3

Strategy for Gaining Support of Community Stakeholder Group 3

Community Stakeholder Group 4

Strategy for Gaining Support of Community Stakeholder Group 4

V. SUMMARY



SUMMARY

- Each stakeholder group has an agenda.
- Engage stakeholders.
- Organizational and community equity is essential.

Slide 5-20

This page intentionally left blank.

REFERENCES

- Center for Civic Partnerships. "Community Based Systems Change: Getting Started," 2001.
- Conger, Jay A. "The Necessary Art of Persuasion." Harvard Business Review on Management, 1999, pp. 225-227.
- Heifetz, Ronald and Donald Laurie. "The Work of Leadership." Harvard Business Review on Leadership, 1998, pp. 171-197.
- Morgan, David, Robert England and John Pelissero. "Managing Urban America." Sixth ed., CQ Press, 2007.
- National Volunteer Fire Council. NVFC Guide to Grassroots Activism and the Emergency Services.
- Ohren, Joe. "Improving Local Government Decisionmaking: Insights from Local Government Officials." Public Management, Jan./Feb. 2007, pp. 18-23.
- Thompson, Dennis. "Paradoxes of Government Ethics." Public Administration Review, Vol. 52, No. 3, (1992): pp. 254-259.
- Wilson, James Q. and George L. Kelling. "Broken Windows." Manhattan Institute for Policy Research.

This page intentionally left blank.

UNIT 6: CULMINATING PROJECT

TERMINAL OBJECTIVE

The students will be able to:



- 6.1 *Present strategies for community risk reduction based on the assessed risk in their community and their intervention, implementation, evaluation plan, application of change, leadership strategies, and strategy for influencing local policy.*

ENABLING OBJECTIVES

The students will be able to:

- 6.1 *Summarize leadership potential and authority for community risk reduction, and explain vision for a safer community.*
 - 6.2 *Identify priority risk areas and justification for the risk selection.*
 - 6.3 *Summarize implementation/evaluation plan.*
 - 6.4 *Summarize marketing strategy, and identify community partners.*
-

This page intentionally left blank.



UNIT 6: CULMINATING PROJECT

Slide 6-1

ENABLING OBJECTIVES

- Summarize leadership potential and authority for community risk reduction, and explain vision for a safer community.
- Identify priority risk areas and justification for the risk selection.
- Summarize implementation/evaluation plan.
- Summarize marketing strategy, and identify community partners.

Slide 6-2

This page intentionally left blank.

ACTIVITY 6.1

Culminating Project

Purpose

Integrate the elements of the activities from Units 1 through 5 into a comprehensive risk-reduction plan for your home community.

Directions

1. Each of you will deliver an eight- to 10-minute presentation on Friday. The presentation will be based on the information that you have developed during the individual and small group activities in class. Specifically, the presentation will summarize your community risk-reduction plan, which you have developed for a risk area in your community. All of the information required for the presentation should have been developed during classroom and evening activities. You will be presenting to your supervisor.
2. During the presentation, you must provide the following information about your community and the risk-reduction plan.
 - a. A brief explanation of your leadership potential and authority in regard to community risk reduction. Your leadership potential and authority may go beyond your role as a champion to include other roles you may have in the community (i.e., community service groups, professional affiliations). (Refer to Activity 1.3: Evaluating Your Current and Future Authority and Political Factors for this information.) Include a brief overview of what your personal vision is for a safer community. (Refer to Activity 1.2: A Safer Community Begins With a Personal Vision for this information.)
 - b. The description of your priority risk for your local community and justification for the risk selected. (Refer to Activity 2.3: Local Community Risks and Activity 2.4: Identification of Leading Community Risk Issue and Developing a Problem Statement for this information.)
 - c. A summary of your risk-reduction implementation and evaluation plan that includes only your outcome objectives and how you will use the five E's to address your issue. (Refer to Activity 3.10: Writing an Implementation/Evaluation Plan for details on the implementation and evaluation plan.)
 - d. A summary of your marketing strategy for your community risk-reduction plan. (Refer to Activity 3.4: Marketing Strategy for a Selected Risk-Reduction Program.)
 - e. A summary of any potential change issues identified (Activity 4.3: Creating Cultural Change Within the Fire Service).

3. You may create a PowerPoint digital slideshow to accompany your presentation; however, it is not mandatory. If you do decide on using a slideshow, it is limited to no more than 15 slides. Remember, the slideshow is to simply enhance your personal presentation of the course project; the slideshow should not be the presentation. Keep the slides basic and to the point.
4. At the end of your presentation or the eight- to 10-minute time limit, whichever comes first, other presenters and the instructors may ask you questions about your plan. Be prepared to answer questions. The questions will only be to clarify elements of your plan rather than challenge your strategies.
5. To support your presentation, you must prepare a one-page summary of the key points of your presentation. A copy of the summary will be provided to your instructors. Please put your contact information on the summary. Limit the summary to one page. Prepare the summary just as you would if you were giving an informational presentation to your supervisor.
6. An instructor will evaluate your presentation based on the following criteria:
 - a. Leadership potential and authority for community risk reduction and vision for a safer community are explained.
 - b. The priority risk areas identified and justification for the risk selected.
 - c. The risk-reduction implementation and evaluation plan is summarized.
 - d. The marketing strategy is summarized, and community partners are identified.
 - e. Summary of any potential change issues identified and staying within allotted time.
7. Finally, here are a few tips for success with the individual course project. Begin early. You can begin preparing the presentation once you have completed Activity 1.2. You should have the information about your community from the pre-course assignment.
 - a. Once you complete one of the activities listed in No. 2, add the information to your presentation.
 - b. Discuss your presentation with other presenters, and seek their feedback and suggestions.
 - c. Prepare the presentation with the mindset that you are delivering an informational or persuasive presentation to the audience of your choice, depending upon your rank within your organization. Anticipate the questions they would have about the plan, your role, the need for risk reduction, etc.

- d. If you have any questions, ask the instructors as soon as possible. Avoid waiting until Wednesday night to seek answers to questions about the project.
- 8. Good luck with your presentation. Ask an instructor if you have any questions about the project.

This page intentionally left blank.

ACTIVITY 6.1

Rubric for Assessment Tool — Culminating Project

Directions: For each of the five assessment areas in the left column, rate each on a scale from 5 to 20 points. Place an “X” through one of the five point value areas (Columns 3 to 6). Subtotal at the bottom. Transfer this score to the student’s Individual Culminating Scoring Summary sheet.

Assessment Area	Total Point Value	Poor (5 points)	Fair (10 points)	Good (15 points)	Excellent (20 points)
Explained his or her leadership potential and authority for the community risk-reduction issue and vision for a safer community.	20	Insufficiently explained leadership potential and authority for the community risk-reduction issue and vision for a safer community.	Partially explained leadership potential and authority for the community risk-reduction issue and vision for a safer community.	Satisfactorily explained leadership potential and authority for the community risk-reduction issue and vision for a safer community.	Thoroughly explained leadership potential and authority for the community risk-reduction issue and vision for a safer community.
Identified and described the priority risk areas for the community and justified the selection of the particular risk issue.	20	Insufficiently identified and described the priority risk areas for the community and justified the selection of the particular risk issue.	Partially identified and described the priority risk areas for the community and justified the selection of the particular risk issue.	Satisfactorily identified and described the priority risk areas for the community and justified the selection of the particular risk issue.	Thoroughly identified and described the priority risk areas for the community and justified the selection of the particular risk.
Summarized the implementation/evaluation plan for addressing the selected risk-reduction issue.	20	Insufficiently summarized the implementation/evaluation plan for addressing the selected risk-reduction issue.	Partially summarized the implementation/evaluation plan for addressing the selected risk-reduction issue.	Satisfactorily summarized the implementation/evaluation plan for addressing the selected risk-reduction issue.	Thoroughly summarized the implementation/evaluation plan for addressing the selected risk-reduction issue.
Summarized a marketing strategy and identified community partners.	20	Insufficiently summarized a marketing strategy and identified community partners.	Partially summarized a marketing strategy and identified community partners.	Satisfactorily summarized a marketing strategy and identified community partners.	Thoroughly summarized a marketing strategy and identified community partners.
Identified and addressed potential change issues that may arise as a result of the community risk-reduction plan. Summarized key points of the plan and stayed within allotted time.	20	Insufficiently identified and addressed potential change issues that may arise as a result of the community risk-reduction plan. Poor summary. Over allotted time.	Partially identified and addressed potential change issues that may arise as a result of the community risk-reduction plan. Fair summary. Over allotted time.	Satisfactorily identified and addressed potential change issues that may arise as a result of the community risk-reduction plan. Good summary. Stayed within allotted time.	Thoroughly identified and addressed potential change issues that may arise as a result of the community risk-reduction plan. Excellent summary. Stayed within allotted time.
Total Points	100				

This page intentionally left blank.

ACTIVITY 6.1 (cont'd)

Culminating Project Presentation Evaluation Form

Presenter: _____ Date: _____

Department/Community: _____

Presentation Evaluator: _____

Presentation Evaluator: _____

1. The student clearly explained his or her leadership potential and authority for the community risk-reduction issue and vision for a safer community.

☐ Excellent

☐ Good

☐ Fair

☐ Poor

Comments: _____

2. The student identified the priority risk areas for the community and justified the risk selected.

☐ Excellent

☐ Good

☐ Fair

☐ Poor

Comments: _____

3. The student summarized the community risk-reduction implementation/evaluation plan for addressing risk identified in No. 2 above.

☐ Excellent

☐ Good

☐ Fair

☐ Poor

Comments: _____

4. The student summarized a marketing strategy and identified community partners for the community risk-reduction plan.

☐ Excellent

☐ Good

☐ Fair

☐ Poor

Comments: _____

5. The student identified and addressed any potential change issues that may arise as a result of the community risk-reduction plan. The student did a summary and stayed within the allotted time.

☐ Excellent

☐ Good

☐ Fair

☐ Poor

Comments: _____

ACRONYMS

This page intentionally left blank.

ACRONYMS

ACS	American Community Survey
AHJ	authority having jurisdiction
ALS	advanced life support
ARC	American Red Cross
BLS	basic life support
CDC	Centers for Disease Control and Prevention
CERT	Community Emergency Response Team
CFM	Chief Fire Marshal
CO	Company Officer
CPR	cardiopulmonary resuscitation
CSV	Children's Safety Village
DHS	Department of Homeland Security
DUI	driving under the influence
DVD	digital video disc
EACRR	"Executive Analysis of Community Risk Reduction"
EFO	Executive Fire Officer
EFOP	Executive Fire Officer Program
EMS	Emergency Medical Services
EOC	Emergency Operations Center
ESRI	Environmental Systems Research Institute
FEMA	Federal Emergency Management Agency
GIS	Geographic Information System

IFSTA	International Fire Service Training Association
IG	Instructor Guide
IIHS	Insurance Institute for Highway Safety
IRM	Integrated Risk Management
LODDs	line-of-duty deaths
LRC	Learning Resource Center
LSCRR	“Leadership Strategies for Community Risk Reduction”
NEMSIS	National EMS Information System
NFA	National Fire Academy
NFDC	National Fire Data Center
NFFF	National Fallen Firefighters Foundation
NFIRS	National Fire Incident Reporting System
NFPA	National Fire Protection Association
NHTSA	National Highway Traffic Safety Administration
NWS	National Weather Service
PASS	personal alert safety system
PFD	personal floatation device
PSA	public service announcement
PSAP	public safety answering point
RMS	records management system(s)
SAW	Student Activity Worksheet
SM	Student Manual
SMART	Specific, M easurable, Achievable, R ealistic and T ime framed

SORT	Summary Output Reports Tool
USFA	U.S. Fire Administration
WISQARS	Web-based Injury Statistics Query and Reporting System
WUI	wildland urban interface

This page intentionally left blank.